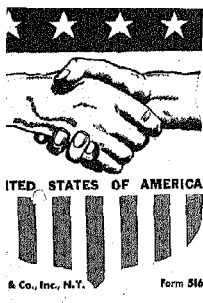


THE ELEMENTARY SCHOOL JOURNAL

EMPHASIZING INSTRUCTION
ADMINISTRATION • SOCIAL CHANGE

OCTOBER 1941

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Volume XLII

CONTENTS FOR OCTOBER 1941

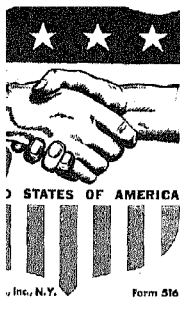
Number 2

Educational News and Editorial Comment	<i>Hilda Taba</i>	81
Evaluation and Use of Sound Films	<i>Howard A. Gray</i>	97
Improving the Reading Ability of Elementary-School Pupils	<i>J. W. Johnston, J. H. Coleman, and W. S. Guiler</i>	105
Oral and Written Expression of Numbers of Three or More Digits	<i>Dorothy M. Rolston and Herbert F. Spitzer</i>	116
Format and Content of Readers	<i>Leila Stevens</i>	120
Selected References on Elementary-School Instruction. II		130
Educational Writings:		
Reviews and Book Notes		147
Current Publications Received		155

THE ELEMENTARY SCHOOL JOURNAL IS PUBLISHED MONTHLY FROM SEPTEMBER TO JUNE. THE SUBSCRIPTION PRICE IS \$2.50 A YEAR; THE PRICE OF SINGLE COPIES IS 30 CENTS. ORDERS FOR SERVICE OF LESS THAN A HALF-YEAR WILL BE CHARGED AT THE SINGLE-COPY RATE. POSTAGE IS PREPAID BY THE PUBLISHERS ON ALL ORDERS FROM THE UNITED STATES AND POSSESSIONS. POSTAGE IS CHARGED EXTRA AS FOLLOWS: CANADA, 20 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$2.70), 2 CENTS ON SINGLE COPIES (TOTAL 32 CENTS); ALL OTHER FOREIGN COUNTRIES, 60 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$3.10), 6 CENTS ON SINGLE COPIES (TOTAL 36 CENTS). PAYMENTS SHOULD BE MADE BY CHECK, MONEY ORDER, OR BANK DRAFTS. ADDRESS ALL COMMUNICATIONS TO THE UNIVERSITY OF CHICAGO, 5401 ARK AVENUE, CHICAGO, ILLINOIS.

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Volume XLII

CONTENTS FOR NOVEMBER 1941

Number 3

Educational News and Editorial Comment	<i>Virgil E. Herrick</i>	161
Existing Practices in the Evaluation of Pupil Growth in the Elementary School	<i>Arthur E. Hamalainen</i>	175
Types of Errors in Division of Decimals	<i>Foster E. Grossnickle</i>	184
Current Practices with Respect to Phonetic Analysis in the Primary Grades	<i>William A. Brownell</i>	195
A Music Program for Elementary-School Teachers in Training	<i>Lloyd F. Sunderman</i>	207
Selected References on Elementary-School Instruction. III		212
Educational Writings:		
Reviews and Book Notes		229
Current Publications Received		237

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Volume XLII

CONTENTS FOR DECEMBER 1941

Number 4

Educational News and Editorial Comment	<i>Caroline Tryon</i>	241
Elements in Geography Readiness	<i>Gertrude Whipple</i>	256
Personality Maladjustment as a Causative Factor in Reading Disability	<i>S. Vincent Wilking</i>	268
Making Pupil Activities Serve Constructive Ends	<i>W. S. Dakin</i>	280
New Trends in Primary-Grade Readers	<i>George Spache</i>	283
Unifying Ideas in Arithmetic Instruction	<i>H. Van Engen</i>	291
Selected References on Teacher Education	<i>William S. Gray</i>	297
Educational Writings:		
Reviews and Book Notes		306
Current Publications Received		315

THE ELEMENTARY SCHOOL JOURNAL IS PUBLISHED MONTHLY FROM SEPTEMBER TO JUNE. THE SUBSCRIPTION PRICE IS \$2.50 A YEAR; THE PRICE OF SINGLE COPIES IS 30 CENTS. ORDERS FOR SERVICE OF LESS THAN A HALF-YEAR WILL BE CHARGED AT THE SINGLE-COPY RATE. POSTAGE IS PREPAID BY THE PUBLISHERS ON ALL ORDERS FROM THE UNITED STATES AND POSSESSIONS. POSTAGE IS CHARGED EXTRA AS FOLLOWS: CANADA, 20 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$2.70), 2 CENTS ON SINGLE COPIES (TOTAL 32 CENTS); ALL OTHER FOREIGN COUNTRIES, 60 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$3.10), 6 CENTS ON SINGLE COPIES (TOTAL 36 CENTS). PATRONS ARE REQUESTED TO MAKE ALL REMITTANCES IN POSTAL OR EXPRESS MONEY ORDERS OR BANK DRAWS. ADDRESS ALL COMMUNICATIONS TO THE DEPARTMENT OF EDUCATION, UNIVERSITY OF CHICAGO, 5835 KIMBARK AVENUE, CHICAGO, ILLINOIS.

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ELIZABETH KILE, BUSINESS MANAGER

Volume XLII

CONTENTS FOR JANUARY 1942

Number 5

Educational News and Editorial Comment	G. T. Buswell	321
Development of the Chicago Program To Aid Pupils Lacking Reading Readiness	William H. Johnson	337
Integration of Fifth-Grade Spelling and Handwriting	Stanley I. Thompson	347
The Persistence of Educational Progress during the Decade of the Civil War. I	Herman G. Richey	358
Teachers' Opinions on the Teaching of Conservation in the Elementary School	Vernon G. Carter	367
A Method of Self-instruction for Learning the Easier Addition and Subtraction Combinations in Grade I	D. Banks Wilbur	371
Selected References on Public-School Administration. I	William C. Reavis and Nelson B. Henry	381
Educational Writings:		
Reviews and Book Notes		389
Current Publications Received		396

THE ELEMENTARY SCHOOL JOURNAL IS PUBLISHED MONTHLY FROM SEPTEMBER TO JUNE. THE SUBSCRIPTION PRICE IS \$2.50 A YEAR; THE PRICE OF SINGLE COPIES IS 30 CENTS. ORDERS FOR SERVICE OF LESS THAN A HALF-YEAR WILL BE CHARGED AT THE SINGLE-COPY RATE. POSTAGE IS PREPAID BY THE PUBLISHERS ON ALL ORDERS FROM THE UNITED STATES AND POSSESSIONS. POSTAGE IS CHARGED EXTRA AS FOLLOWS: CANADA, 20 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$2.70), 2 CENTS ON SINGLE COPIES (TOTAL 32 CENTS); ALL OTHER FOREIGN COUNTRIES, 60 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$3.10), 6 CENTS ON SINGLE COPIES (TOTAL 36 CENTS). PATRONS ARE REQUESTED TO MAKE ALL REMITTANCES IN POSTAL OR EXPRESS MONEY ORDERS OR BANK DRAFTS. ADDRESS ALL COMMUNICATIONS TO THE DEPARTMENT OF EDUCATION, UNIVERSITY OF CHICAGO, 5835 KIMBARK AVENUE, CHICAGO, ILLINOIS.

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ELIZABETH KILE, BUSINESS MANAGER

Volume XLII

CONTENTS FOR FEBRUARY 1942

Number 6

Educational News and Editorial Comment	Olga Adams	401
Progressivism and Democracy	Sylvia Paulay	418
Some Factors Associated with the School Achievement of Children in Migrant Families	E. D. Tetreau and Varden Fuller	423
Safety Patrols in Elementary Schools	Leslie W. Irwin and James W. Paustian	432
Reading before the Eye-Movement Camera versus Reading Away from It	Luther C. Gilbert and Doris Wilcox Gilbert	443
The Abacus in the Teaching of Arithmetic	Herbert F. Spitzer	448
A Vocabulary Study Based on 107 Primary-Grade Books	Clarence R. Stone	452
The Persistence of Educational Progress during the Decade of the Civil War. II	Herman G. Richey	456
Selected References on Public-School Administration. II	William C. Reavis and Nelson B. Henry	464
Educational Writings:		
Reviews and Book Notes		471
Current Publications Received		477

THE ELEMENTARY SCHOOL JOURNAL IS PUBLISHED MONTHLY FROM SEPTEMBER TO JUNE. THE SUBSCRIPTION PRICE IS \$2.50 A YEAR. THE PRICE OF SINGLE COPIES IS 30 CENTS. ORDERS FOR SERVICE OF LESS THAN A HALF-YEAR WILL BE CHARGED AT THE SINGLE-COPY RATE. POSTAGE IS PREPAID BY THE PUBLISHERS ON ALL ORDERS FROM THE UNITED STATES AND POSSESSIONS. POSTAGE IS CHARGED EXTRA AS FOLLOWS: CANADA, 20 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$2.70), 2 CENTS ON SINGLE COPIES (TOTAL 32 CENTS); ALL OTHER FOREIGN COUNTRIES, 60 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$3.10), 6 CENTS ON SINGLE COPIES (TOTAL 36 CENTS). PATRONS ARE REQUESTED TO MAKE ALL REMITTANCES IN POSTAL OR EXPRESS MONEY ORDERS OR BANK DRAFTS. ADDRESS ALL COMMUNICATIONS TO THE DEPARTMENT OF EDUCATION, UNIVERSITY OF CHICAGO, 5835 KIMBARK AVENUE, CHICAGO, ILLINOIS.

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ELIZABETH KILE, BUSINESS MANAGER

Volume XLII	CONTENTS FOR MARCH 1942	Number 7
Educational News and Editorial Comment	<i>Nelson B. Henry</i>	481
A Complete Program of Social Studies	<i>Charles H. Judd</i>	498
The Task of Reading	<i>Matthew Luckiesh and Frank K. Moss</i>	510
Instructional Programs in Scottish Primary Schools Compared with Elementary-School Programs in the United States	<i>Newman A. Wade</i>	515
Arithmetical Processes Needed by Children	<i>Roy DeVert Willey</i>	524
Suggestions for an Elementary-School Course in Music	<i>Eldon L. McColthum</i>	528
Poetry Presentation of Second- and Third-Grade Readers	<i>Leila Stevens</i>	534
Selected References on Preschool and Parental Education	<i>Florence L. Goodenough</i>	540
Educational Writings:		
Reviews and Book Notes		550
Current Publications Received		557

THE ELEMENTARY SCHOOL JOURNAL IS PUBLISHED MONTHLY FROM SEPTEMBER TO JUNE. THE SUBSCRIPTION PRICE IS \$2.50 A YEAR. THE PRICE OF SINGLE COPIES IS 30 CENTS. ORDERS FOR SERVICE OF LESS THAN A HALF-YEAR WILL BE CHARGED AT THE SINGLE-COPY RATE. POSTAGE IS PREPAID BY THE PUBLISHERS ON ALL ORDERS FROM THE UNITED STATES AND POSSESSIONS. POSTAGE IS CHARGED EXTRA AS FOLLOWS: CANADA, 20 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$2.70), 2 CENTS ON SINGLE COPIES (TOTAL 32 CENTS); ALL OTHER FOREIGN COUNTRIES, 60 CENTS ON ANNUAL SUBSCRIPTIONS (TOTAL \$3.10), 6 CENTS ON SINGLE COPIES (TOTAL 36 CENTS). PATRONS ARE REQUESTED TO MAKE ALL REMITTANCES IN POSTAL OR EXPRESS MONEY ORDERS OR BANK DRAFTS. ADDRESS ALL COMMUNICATIONS TO THE DEPARTMENT OF EDUCATION, UNIVERSITY OF CHICAGO, 5835 KIMBARK AVENUE, CHICAGO, ILLINOIS.

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Volume XLII

CONTENTS FOR APRIL 1942

Number 8

Educational News and Editorial Comment	<i>Newton Edwards</i>	561
What the Elementary-School Teacher Should Know about Economics	<i>Ruth Wood Gavian</i>	578
Difficulties Involved in Long Division and Some Suggestions for Teaching the Process	<i>Henrietta Holland</i>	585
Elementary-School Housing: An Appraisal of a Wartime Expedient	<i>Richmond Barbour</i>	597
A Co-operative Training Program	<i>E. C. Bolmeier</i>	603
Early Achievement in Reading	<i>Frank T. Wilson</i>	609
Comparison of Scores on the Revised Edition and the Older Edition of the Stanford Achievement Test	<i>Arthur E. Traxler</i>	616
Selected References on Kindergarten-Primary Education	<i>Katherine L. McLaughlin</i>	621
Educational Writings:		
Reviews and Book Notes		628
Current Publications Received		637

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Volume XLII

CONTENTS FOR MAY 1942

Number 9

Educational News and Editorial Comment	<i>William S. Gray</i>	641
Protecting Democratic Values in a Nation at War	<i>Newton Edwards</i>	656
Social Problems—An Elementary-School Fallacy?	<i>John H. Martin and O. J. LuPone</i>	664
Building Sentences by Using Models	<i>John H. Treanor</i>	669
Stability of Intelligence Quotients of Metropolitan Children of Foreign-born Parentage	<i>Myron R. Goldin and Seymour Rothschild</i>	673
Educational Attainment of Urban Youth in Various Income Classes. I	<i>Bernard D. Karpinos and Herbert J. Sommers</i>	677
Selected References from the Literature on Exceptional Children	<i>Gertrude Hildreth and Christine P. Ingram</i>	688
Educational Writings:		
Reviews and Book Notes		706
Current Publications Received		715

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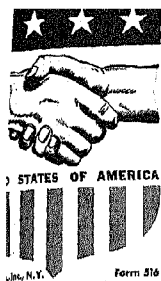
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Volume XLII

CONTENTS FOR JUNE 1942

Number 10

Educational News and Editorial Comment	Glenn O. Blough	721
Education of the Gifted Child: With Special Reference to Reading	William S. Gray	736
Sources of Problems for Research	Carter V. Good	745
Limitations on Federal Control of Education	Sylvanus A. Ballard	755
Educational Attainment of Urban Youth in Various Income Classes. II	Bernard D. Karpinos and Herbert J. Sommers	766
Selected References on Foreign Education	Alina M. Lindegren	775
Educational Writings:		
Reviews and Book Notes		789
Current Publications Received		799
Index to Volume XLII		

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VOLUME XLII * SEPTEMBER 1941 * NUMBER 1

Educational News and Editorial Comment

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THE UNIVERSITY OF CHICAGO'S FIFTIETH
ANNIVERSARY: 1891-1941

WILLIAM RAINEY HARPER took office as the first president of the University of Chicago on July 1, 1891. This date is now officially recognized as the date of the establishment of the University, and 1941 is being celebrated as the fiftieth anniversary of the foundation of the institution. Plans for the celebration were formulated during the academic year 1939-40, and the direction of the various functions contemplated was intrusted to Frederic Woodward, whose distinguished and extended services as vice-president of the University marked him conspicuously for this strategic post.

The first formal function of the impressive series of events included in the program of the celebration was a luncheon in honor of the University's sponsors and commemorating the first meeting of the University's first Board of Trustees, which convened on July 9, 1890. The next event was a Commemorative Chapel Service on October 8, 1940, which was followed by an Alumni Assembly on November 9. In the course of the year numerous exhibits of the University's research equipment and achievements have been visited by thousands of students and friends of the institution. A score of America's leading learned societies accepted the invitation of the University to

hold their annual meetings in Chicago, and an exceptional series of more than fifty symposia has been arranged for the last week of September, 1941. Participating in these symposia are many of the most distinguished scholars from both American and Old World universities, and others from museums, research organizations, and government agencies. The addresses and discussions will deal with the newest and most significant advances in learning in the biological, physical, and social sciences; the humanities; law; business; religion; and social service. Following the five days of symposia, a three-day academic festival includes a day devoted to activities of the alumni, a reception of delegates from four hundred institutions of learning, a special chapel service, and an anniversary concert. The final event of the celebration is a special convocation, at which honorary degrees will be conferred on thirty-two distinguished scientists and scholars.

The theme of the symposia climaxing the celebration is "New Frontiers in Education and Research." It is altogether fitting that a university which in the brief span of fifty years has become world-renowned for its educational program and for the contributions it has made to knowledge should devote its attention in this celebration to the future rather than to the past. Although the past fifty years have opened vistas of knowledge undreamed of in the nineteenth century and have increased the range and significance of educational responsibilities fourfold, the new frontiers lying ahead offer even greater challenge to teachers and scholars.

The symposia are planned to cover all fields and will attract representatives of every discipline. There are several which are likely to be of particular interest to workers in education. A symposium on "Environment and Education," under the chairmanship of Robert J. Havighurst, professor of education and secretary of the Committee on Human Development, will be held on Monday afternoon, September 22. This subject will be opened by Ernest Watson Burgess, professor of sociology, speaking on "Educative Effects of Urban Environment." Franz Alexander, director of the Institute for Psychoanalysis, Chicago, Illinois, will discuss the "Educative Influence of Personality Factors in the Environment." William Lloyd Warner, professor of anthropology and sociology, will speak on the "Educa-

tive Effects of Social Status," while Margaret Mead, assistant curator of the American Museum of Natural History, New York City, will consider the "Educative Effects of Social Environment as Disclosed by Studies of Primitive Societies." These topics indicate that this program will deal with fundamental functions of education in modern society and will seek to clarify the relations of the several educational agencies operating in the modern community.

Under the chairmanship of Guy Thomas Buswell, professor of educational psychology, a symposium entitled "The Conceptual Structure of Educational Research" will be held on Tuesday afternoon, September 23. Thomas Raymond McConnell, professor of educational psychology and associate dean of the College of Science, Literature, and the Arts at the University of Minnesota, will open the program by discussing "The Nature of Educational Research." Douglas Edgar Scates, professor of education at Duke University, will treat "The Conceptual Background of Research," while Frank Nugent Freeman, dean of the School of Education of the University of California, will present a paper on "Controlling Concepts in Educational Research." The purpose of this program is to clarify some of the major issues in contemporary educational research in an effort to provide a fundamental basis for improving research in education.

A symposium on "Measurement and Experiment" will be held on Wednesday afternoon, September 24, under the chairmanship of William Fielding Ogburn, chairman of the Department of Sociology. Samuel S. Wilks, associate professor of mathematics at Princeton University, will discuss "Some Recent Advances in Statistical Inference and Their Operational Interpretation," while Louis Leon Thurstone, professor of psychology at the University of Chicago, will outline "The Principle of Simple Structure." This symposium will have great significance for testing and experimentation in education because recent efforts to improve educational experiments have been hampered by the lack of an adequate theory of measurement and by the limitations of the conventional statistical methods.

Under the chairmanship of John Ulric Nef, professor of economic history, a symposium on "The Place of Ethics in Social Science" will be held on Friday morning, September 26. President Robert Maynard Hutchins will speak on "Ethics, Politics, and Education."

Richard Henry Tawney, of the University of London, and Charles Howard McIlwain, professor of the science of government at Harvard University, will join in the discussion. Jacques Maritain, professor of philosophy in the Catholic Institute of Paris and visiting professor of philosophy at Columbia University, will speak on "The End of Machiavellianism." The educational significance of this symposium is apparent.

During the week of the symposia several events are planned for friends of the Department of Education. The bust of John Dewey by the well-known sculptor, Alexander Portnoff, will be presented to the Department of Education, and the unveiling ceremony will be held Tuesday evening, September 23.

The Department of Education of the University of Chicago extends a cordial invitation to the readers of the *Elementary School Journal* to participate in the Fiftieth Anniversary Celebration and to attend the symposia.

FORTY-ONE YEARS OF THE "ELEMENTARY SCHOOL JOURNAL"

IN REVIEWING the plans for the Fiftieth Anniversary Celebration of the University of Chicago, the editors were led to study the history of the *Elementary School Journal*. The first issue appeared in July, 1900, under the title, *The Course of Study: A Monthly Publication for Teachers and Parents*. It was edited by Francis W. Parker, who was then president of the Chicago Institute, Academic and Pedagogic. A year later the Institute became the School of Education of the University of Chicago with Francis W. Parker as director. At that time the title of the publication became the *Elementary School Teacher and the Course of Study*. In October, 1902, the title was shortened to the *Elementary School Teacher*, and in September, 1914, the present title was adopted. Francis W. Parker remained as editor until his death in 1902. Then John Dewey became director of the School of Education, and Ella Flagg Young, later superintendent of schools of Chicago, became managing editor of the *Journal*. Wilbur S. Jackman, of the Laboratory Schools of the University of Chicago, became the editor in 1904 and retained this position until his death in 1907. He was assisted by the faculty of the School of Education and by the staff of the Francis W. Parker School. When

Charles Hubbard Judd became director of the School of Education in 1909, he also assumed the editorship of the *Journal*, with the assistance of the education faculty and the staff of the Francis W. Parker School. Finally, in January, 1917, a joint editorial committee became responsible for the publication of the *Elementary School Journal*, the *School Review*, and the Supplementary Educational Monographs. Professor Judd continued as chairman of the editorial committee until September, 1930, when Newton Edwards was made editor of the *Elementary School Journal*. Ten years later the present editorial committee became responsible for the *Elementary School Journal*. Although during its history the *Journal* has had three different names and six changes in editorship, the major purposes have continued with unusual consistency. A review of the issues over the forty-one years indicates a recurring emphasis on the social responsibilities of the school and the relation of the school to the community. Studies of child psychology and investigations of elementary-school learning have been continuously featured since the founding of the *Journal*. Furthermore, the *Journal* has always sought to tie together sound educational philosophy with careful study and collection of relevant data so that school practice could be firmly grounded in theory and science. The present editorial board of the *Elementary School Journal* recognizes new and challenging frontiers incident to the continuation of these basic emphases. Although the educational profession now generally recognizes the importance of the social functions of the school, we have yet to formulate a comprehensive theory and practice which will enable the school to serve effectively as a major social institution well integrated with other institutions within the modern community. The continuation of the policy of emphasizing this field in the *Journal* should contribute to progress by the profession on this front.

The need for basing elementary education on sound knowledge of the child and on principles of learning is also generally accepted by the educational profession. The science of educational psychology has grown rapidly during the past forty-one years. We are now beginning to recognize the need for a more adequate synthesis of studies in learning and studies in child development. The *Elementary School Journal* can make some contribution in attacking this frontier

through its selection of articles and through editorial comment. Finally, the *Journal* will continue to emphasize the need for valid evidence and for scientific study as a basis of sound elementary-school practice.

SUMMER ACTIVITIES OF THE UNIVERSITY OF CHICAGO

SEVERAL activities of the University of Chicago during the past summer will be of interest to the readers of the *Elementary School Journal*. The Fourth Annual Conference on Reading provided many concrete answers to the difficult problem of adjusting the reading program to the individual. The annual Conference for Administrative Officers of Public and Private Schools devoted its attention to the impending changes in the schools necessitated by recent socio-economic changes. Workshops in elementary education and in human development gave opportunity for teachers to work intensively on problems of importance in their own schools. Demonstration classes in the Nursery School, the Elementary School, the High School, the Junior College, and in selected rural schools provided students and visitors with opportunities for observing and discussing characteristic developments in educational practice. Since these activities are proving to be an increasingly important phase of university work and since they have been warmly approved by teachers and administrative officers as excellent devices for the in-service education of the school staff, they are reported in greater detail in the following paragraphs.

The summer workshops conducted on the campus The workshop for teachers and administrators of elementary schools was, for the first time, continued through both terms of the summer session. This plan provided opportunity for participants to enrol in either term or in both terms. An increasing number of participants came to the workshop in groups from schools where curriculum reconstruction or revision is under way. Several teachers from the same school are able to make a more comprehensive attack on their problems than can teachers who come individually. More school systems are using the workshops as a means for obtaining guidance and assistance in their efforts at curriculum development.

Staff members from elementary schools were not only enrolled in the Workshop in Elementary Education, but some also participated in the Workshop in Human Development and Education. About seventy persons from twenty-five states spent the entire summer quarter in the latter workshop. A majority of them came from institutions and school systems co-operating with the Commission on Teacher Education of the American Council on Education.

The group consisted of elementary- and secondary-school teachers and administrators and college teachers and personnel workers. Most of the public-school teachers and administrators have gone back to lead study groups in their own schools, as well as to apply their knowledge of child development to the improvement of their own teaching. The college teachers developed new material for their courses in child development and in educational psychology. Several college deans and personnel officers studied the problem of guidance in the college. Several biology teachers in colleges and in secondary schools worked out teaching materials in human biology.

Procedures in this workshop departed from typical workshop procedure because the full summer quarter was available for work and because most of the participants needed to spend a great deal of time in studying the facts and the principles of human development. Therefore the usual workshop procedure, in which each participant concentrates on his own particular practical problem, was supplemented by intensive study in those parts of the field of human development which related most directly to the problem. To facilitate this study, a set of fifteen three-week seminars was organized, led by members of the faculty of the University. Each participant had the opportunity to work in three of these seminars. The seminar topics were so chosen as to cover the entire field of human development. In addition, many participants elected one regular summer-quarter course in the field of human development for the purpose of getting a systematic overview of some aspects of this field.

The consensus of the workshop members is that the combination of work on a practical problem with intensive study of human development turned out rather well. The seminars, in particular, proved useful. For this kind of workshop, unpublished research material and a special library in the field of human development are invaluable. Here the University's resources proved satisfactory.

Workshops for the rural teacher held in Michigan In co-operation with the W. K. Kellogg Foundation, the Department of Education of the University of Chicago conducted two workshops—one at Hastings, Michigan, and the other at Hillsdale, Michigan—for teachers in rural schools and in small towns. One hundred and twenty teachers participated in these workshops, attacking problems relating to the elementary-school curriculum, the guidance of elementary-school pupils, administrative procedures, and community relationships. The staff included persons trained in the fields of child development, biology, sociology, arts and crafts, curriculum and supervision, and children's literature. A summer demonstration school was provided in each center, and a one-room rural school near Hastings was used to provide laboratory facilities in this field. In the Hastings workshop special emphasis was given to biological science because the teachers desired assistance in the more effective use of local resources in their science-teaching. The work of the laboratory school in Hastings led to a community-recreation project which is still being carried on after the close of the workshop. At Hillsdale major attention was devoted to the social sciences, and the participants made a sociological survey of their community in order to identify problems and to discover resources of value in their teaching.

The Department of Education, in co-operation with the University of Michigan and the W. K. Kellogg Foundation, is planning a follow-up service during the year 1941-42 by giving consultation and assistance to the teachers in putting into practice in their own schools plans worked out during the summer.

NEW PROVISIONS FOR TEACHER TENURE

A RECENT issue of the *New York Times* carried a report by M. M. Chambers, of the National Youth Administration, regarding legislation on teacher tenure adopted during the first half of 1941. In six states laws were passed improving the conditions of tenure under which teachers work. The most significant statute was adopted by the Ohio legislature under the title "Teacher's Continuing Contract Law":

The law stipulates that on or before September 1, 1941, each board of education shall enter into . . . a "continuing contract" with each teacher who had, at the time of the passage of the act, completed five or more consecutive years of employment by the same district, and who holds a professional or permanent certificate. This makes it possible for a considerable number of experienced and properly qualified teachers to be put on permanent status immediately, by allowing their probationary service to be counted retrospectively.

Regarding teachers having less than five years of experience in the same district, the law specifies that after three years of service (or only two years, if the teacher has previously held a continuing contract in some other district) a teacher becomes eligible for the permanent status if recommended by the superintendent; but the school board may reject the recommendation by a three-fourths vote of its full membership.

Thereafter in such a case the same board may employ the teacher under an ordinary contract for not to exceed two years, whereupon any further employment of that teacher by the same board must be under a continuing contract.

None of the foregoing provisions applies to districts having fewer than eight hundred pupils, but the law sets up for these districts a system of term contracts. The first contract with any teacher may be for a period of from one to five years at the discretion of the school board, depending upon the previous experience of the teacher. The second contract must be for not less than three years nor more than five years, and all subsequent contracts with the same teacher must be for periods of five years.

Regarding the necessity of dispensing with the services of some teachers when there is a substantial decrease in the number of pupils in a school district, the modern tenure laws generally provide that wherever possible non-permanent teachers shall be suspended first, and that permanent teachers shall be suspended in reverse order of seniority.

Such suspended teachers retain the right to be reinstated whenever vacancies or new positions for which they are qualified occur in the future in the same school system. The new Ohio statute contains these provisions.

Weaker forms of tenure protection were adopted this year by the legislatures of Arkansas, Iowa, Oregon, and Washington. In general these statutes provide that the contract of a teacher shall be automatically renewed for the next succeeding year unless the board of education notifies him to the contrary by a specified date. Since most of these statutes do not require the board of education to state any reasons for terminating his services, these laws are only an intermediate step toward the fuller protection provided by the new Ohio legislation.

SCHOOLS AND PUBLIC LIBRARIES

THE United States Office of Education recently announced publication of a bulletin entitled *Laws Affecting School Libraries*, the report of a study by two members of the staff, Edith A. Lathrop, associate specialist in school libraries, and Ward W. Keesecker, specialist in school legislation. According to this report, the statutes expressly provide for the establishment of school libraries in twenty-one states, but some of them fail to provide for the financial support of such libraries. In Maryland, New York, and Tennessee, legal responsibility for establishment of school libraries rests with the residents of the local school district. The state or county chief school officer in Rhode Island, Washington, and Wisconsin has this legal authority. School districts in Delaware, Minnesota, and New Jersey and the governing body of local school districts in the remaining states have the right to establish school libraries. It is asserted on the authority of the Office of Education that any school district may provide library service through general legal powers vested in governing bodies of school districts. However, many districts are unable to do so because of lack of funds.

The inadequacy of library materials and facilities has long been a conspicuous deficiency of both secondary and elementary schools in large numbers of American communities. Changing methods of teaching and the broadening functions of institutional training in virtually all phases of education tend persistently to magnify the place of the library in the improving school program. School authorities are somewhat generally sensitive to the need for better library service in the schools and usually respond, although with varying liberality and with perhaps too much concern for the apparent limitations of available resources. Classroom teachers commonly find their own resourcefulness severely taxed in serving even the minimal requirements of their pupils for reference and reading materials. Many local school systems have, for many years, received valuable aid from the public libraries of their communities. The advantages of such co-operative enterprise between two social institutions with closely related objectives are so obvious that public libraries and public schools in some states and cities are by law placed under a single governing authority. In many other communities in which

this connection is not legally established, the separate authorities have entered into more or less formal agreement on a plan of mutual aid.

With a view to the furtherance of such co-operative practices, the National Education Association and the American Library Association ten years ago established a joint committee "to facilitate and promote joint studies and other co-operative activities by the two associations in the field of school library service." With the assistance of members of the staff of the Research Division of the National Education Association, this committee made a study of representative local plans of school-library and public-library co-operation. The report of this study, together with a statement by the committee of acceptable principles underlying the differentiated function of public and school libraries, has been published in a pamphlet entitled *Schools and Public Libraries*, which is available for twenty-five cents through the National Education Association.

RALPH W. TYLER

NOTES ON THE ANNUAL READING CONFERENCE

THE Fourth Annual Conference on Reading for teachers and school officers of elementary schools, high schools, and junior colleges convened in Mandel Hall of the University of Chicago from June 25 to June 28, inclusive, under the leadership of Professor William S. Gray. The fact that the audience represented practically every state in the union was most gratifying.

The central theme of the conference was "Adjusting the Reading Program to the Individual." The main issue, as explained by Professor Gray in his opening address, had to do with understanding the specific needs of the child and adjusting the learning activities in order to facilitate pupil growth. It was brought out clearly that, although the effort should tend toward individual development of each child, the large objective should be that the child fit into our democratic way of living.

Speakers at the general sessions of the conference discussed various aspects of the conference theme, while those at the sectional meetings expanded and presented concrete problems relating to, and growing out of, the main topics.

Principles of child psychology which should be taken into consideration in reading instruction were brought out by several speakers and may be summed up as follows:

1. The child is an individual who has interests which the teacher must capitalize both in motivating and in carrying on instruction in reading.
2. Complete understanding between the pupil and the teacher will help to build up a feeling of security on the part of the child.
3. The richer the background of the pupil and the richer the store of meanings which he develops, the more understanding he will be able to obtain from the printed page. This principle lays on the teacher the responsibility of providing an environment rich in learning stimuli.
4. Since every classroom contains pupils who represent different levels of attainment, every classroom must have a variety of carefully graded reading materials of such a nature that continued advancement, however slight, will be possible. A child cannot work under the burden of continual failure.

Personal differences are important factors in reading. Not only is reading an individual way of behaving, but its reason for being lies in the reader's curiosities, his ignorance, his need to know and understand. Illustrations were given to show that far too often teachers of reading have assumed that "individual differences" meant merely variations on a so-called "intelligence" or a "rate-comprehension" scale of reading, that they have not been interested in the causes and the underlying factors which have resulted in easily noted and comparatively superficial evidences of differences. Not only age differences should be recognized in the selection of reading material, but certain growth variations should also be taken into consideration. The listeners were reminded that wide reading is not a panacea for all ills, since problem cases are sometimes pupils who read too much and use reading as a means of avoiding and supplanting other activities.

The desirability of lessening the emphasis on grade lines was set forth by administrators and teachers in city systems where definite plans had been worked out. The four-year primary-grade unit with no grade acceleration but with the use of extra amounts of interesting material for the superior pupils and a plan whereby Grade I B became I B+ and in September of the next year Grade II A were examples of school organizations introduced to meet the needs of the slower-learning pupils.

The pupil reads individually in a number of situations. Whether

he is reading in the regular reading period, in the science period, in the literature or the social-studies period, he should be receiving help within the group at his own level. Several speakers outlined specific procedures for assisting pupils in these various situations.

The nature of the adjustments in teaching to meet the needs of bright and dull pupils presents the extreme aspects of the problem of individual differences, and, moreover, aspects not generally familiar to the average teacher. While teachers are aware that the slow or the mentally retarded child is unable to read as well or as rapidly as is the average or the superior child, the reading abilities and needs of retarded children have not been studied extensively by research workers in the past because it was assumed that these pupils could not learn to read. The pertinent fact was emphasized that, with effort, their level of ability is not far below that of the reading achievement of the average American. In his approach to reading, the slow-learning child differs from the average child in the following ways: (1) He cannot be expected to begin to learn to read at the life-age of six or seven. (2) His rate of learning to read is significantly slower. (3) In most cases he is presented with reading material long before he is ready to learn. (4) His experiential background is usually poorer than that of the average child. Definite suggestions for the adaptation of methods to slow learners were described for the pre-reading period, for the period of initial instruction, for improving reading, and for remedial reading.

Educational casualties among the gifted are the country's great extravagance. The adjustment of the reading program to the gifted child presents three difficult problems: (1) finding the gifted; (2) inventing school facilities that will offer equality of opportunity for the gifted; (3) selecting materials, methods, and educational activities suitable to each individual. As a means of finding the gifted, the recommendation was made that every known dependable tool of child study be used on all children—and as early as possible in the school years.

An account of experiments showing why pupils fail to remember words and suggesting remedies to remove such failures proved extremely practical. A wider use of ear-training and visual-training exercises was recommended, accompanied by a system of word mas-

tery as the child passes from one level of reading ability to another. Since children are intensely interested in watching their own growth in the pure mechanics of reading, these exercises provide concrete evidence which pupils can see and appreciate. For those teachers who are inclined to throw overboard anything that bears any relation to drill, such suggestions showed the importance of developing skills.

Many challenging problems were raised by the speakers at the reading conference. The proceedings of the conference are being published as Supplementary Educational Monograph Number 52 of the Department of Education under the title *Adjusting Reading Programs to Individuals*. The price of the monograph is two dollars, and orders may be sent to the Department of Education, University of Chicago.

GRACE E. STORM

ADMINISTRATIVE ADJUSTMENTS REQUIRED BY SOCIO-ECONOMIC CHANGE

THE Tenth Annual Conference for Administrative Officers of Public and Private Schools was held by the Department of Education of the University of Chicago during the week of July 21-25, 1941. The general theme of the conference was "Administrative Adjustments Required by Socio-economic Change." This theme was especially timely because school administrators are at present confronted with many problems requiring administrative adjustments. Some of the areas in which these adjustments are made necessary are: school finance, curriculum, industrial-arts education, trade instruction, selection and training of personnel, participation in national defense, and the like. Papers in all these areas, as well as in other phases of education, were presented.

The enrolment was somewhat greater than in former years, the total being 334. In this number there were 71 city and county superintendents of schools; 60 principals and assistant principals of secondary schools; 41 elementary-school principals; 27 college professors; 23 teachers; and 62 school-board members. A considerable number (50) were unclassified, although most of them represented some special interest in the field of educational administration. The registrants came from 28 states, the District of Columbia, and one

foreign country. The states with the largest number of representatives were: Illinois, 241; Indiana, 18; Missouri, 18; Wisconsin, 11.

Two special features contributed greatly to the conference. One of these was a dinner given by the Department of Education for school-board members and professional administrators and an after-dinner program devoted to a consideration of the problems of "Social Change and School Finance," "Social Change and the School Curriculum," and "Co-operation of Board Members and Professional Administrators in Solving the Problems of Social Change." The leaders in the discussion were Professors Nelson B. Henry and Ralph W. Tyler, of the University of Chicago, and Superintendent DeWitt S. Morgan, Indianapolis, Indiana. Harold W. Norman, president of the Illinois Association of School Boards, served as chairman of the meeting.

The second feature consisted of a joint program on Friday with the Midwestern Institute on Professional Relations. "How Medicine Has Attained Professional Status," "The Development and Maintenance of Professional Status in Law," and "Recent Progress toward Professional Status in Teaching" were discussed, respectively, by Dr. Anton J. Carlson, Frank P. Hixon distinguished service professor emeritus of physiology, University of Chicago; Professor Bernard C. Gavit, dean of the School of Law, Indiana University; and William S. Gray, professor of education and executive secretary of the Committee on the Preparation of Teachers, University of Chicago. The discussion of these papers was led by Miss Charl Williams, field director of the National Education Association; Irving Pearson, executive secretary of the Illinois State Teachers Association; J. Bruce Buckler, director of extension work at the University of Illinois; and DeWitt S. Morgan, superintendent of schools, Indianapolis, Indiana.

The volume of proceedings, the fourth to be published, will contain the fifteen addresses given at the general sessions, a selected list of references for supplementary reading, and the names of the 334 registrants who attended the conference. The proceedings will be available for distribution on October 1, 1941. Orders received before that time will be filled by the Department of Education, University of Chicago, at the pre-publication price of \$1.50.

W. C. REAVIS

WHO'S WHO FOR SEPTEMBER

Writers of the news notes and authors of articles in the current number The news notes have been prepared by RALPH W. TYLER, professor and chairman of the Department of Education and chief examiner of the Board of Examinations; GRACE E. STORM, assistant professor of kindergarten-primary education; and W. C. REAVIS, professor of education—all at the University of Chicago. In the first article RALPH W. TYLER discusses some conditions which are causing changes in our social and educational concepts and considers the responsibilities of educational administrators for guiding community ideology. EARL K. STOCK, the supervising principal of the public schools at Bellefonte, Pennsylvania, presents three fundamental principles in reading instruction, observance of which may reduce the need for remedial-reading programs. DWIGHT L. ARNOLD, director of guidance and research in the public schools of Lakewood, Ohio, presents objective data which point to the possibility that the teaching of spelling has little effect on spelling mastery. ELIZABETH GUILFOILE, principal of the Twelfth District School, Cincinnati, Ohio, discusses the place of language as a part of the whole school program and outlines stages of growth in children's use of language. ROBERT P. ULRICH, teacher of mathematics at the Parkland Junior Craft School, Toledo, Ohio, after an analysis of eight series of textbooks in arithmetic, indicates the extent of agreement in grade placements of computational topics. LEO J. BRUECKNER, professor of education at the University of Minnesota, presents a selected list of references on the elementary-school curriculum, methods of teaching and study, and supervision.

The writers of reviews in the current number ARTHUR K. LOOMIS, superintendent of the public schools at Shaker Heights, Ohio. FLOYD T. GOODIER, director of integration at Illinois State Normal University, Normal, Illinois. WILLIAM J. HAMILTON, superintendent of the public schools at Oak Park, Illinois. EARL K. HILLBRAND, dean of the University Extension Division at the University of Wichita, Wichita, Kansas.

EDUCATIONAL ADJUSTMENTS NECESSITATED BY CHANGING IDEOLOGICAL CONCEPTS

RALPH W. TYLER

University of Chicago



NECESSITY OF CONSIDERING IDEOLOGICAL CONCEPTS

NO MORE important problem faces educational administrators than that of planning appropriate adjustments of the school to the marked socio-economic changes now in progress. The tremendous modifications in American life during the past ten years which we have called the depression have had serious effects on the schools; the present war and the post-war reconstruction are likely to involve changes even more profound and more significant to education than those of the past ten years. Hence it is as necessary for educational administrators to begin comprehensive planning for the war and the post-war period as it is for our national leaders in political, social, and economic life to plan in their fields for corresponding alterations necessitated by the war and post-war reconstruction.

In considering significant changes in our social and economic life, we are likely to overlook transformations in ideological concepts and to underestimate their significance. Any catalogue of recent social change includes data about such phenomena as unemployment, technological improvements in our modes of production, migrations between city and country, differential birth-rates, and increased concentration of wealth. These data represent tangible changes of great significance to our welfare, but we must not forget that the ideas which people hold—their attitudes and beliefs, their conceptions of the world and of society—are none the less real and significant because they are intangible. To a considerable degree ideological concepts govern the actions of people. Whether or not federal aid will be provided for rural schools depends more on the public's conception of the need of the rural schools and the public's belief concerning the continuing availability of federal funds than it does

on the actual measured inadequacy of rural education and the measured insufficiency of rural funds. Actions taken to speed national defense are governed, to a large degree, by the public's conception of the Nazi philosophy and the public's belief about Germany's intentions. It would not be necessary to make a special study of ideological concepts if they were largely in accord with the actual conditions. If social ideology closely paralleled the facts of our society, then we should need to consider only those facts as a basis for planning educational changes. However, our concepts are frequently different from the facts. The picture of the world as we see it is at points distorted and untrue. Since we act largely on what we think the situation to be, it becomes important in the planning of educational changes to consider the prevailing ideological concepts so that they may be given proper weight in planning the strategy of change.

There is a second way in which ideological concepts are important. If the prevailing concepts are in harmony with desirable changes in education, a sounder and firmer basis for initiating these changes is provided. If the prevailing concepts are opposed to essential changes, efforts to shift the accepted ideology are necessary prerequisites to making effective adjustments in the school. The ideology of a people, that is, their picture of the world and of society, performs an important function in establishing directions which the people consider to be improvements. For example, if the accepted ideology describes the school as a hierarchy leading from kindergarten through elementary school, through high school on to college (a scheme in which the college is the apex of the hierarchy), then the people will interpret college preparation as the most significant function of the high school. Changes in the high school will be considered improvements only if they bring about better college preparation or influence a larger proportion of high-school graduates to go on to college, while other changes which may be more essential will be conceived as deterioration of the high school if they do not promote the college-preparatory function. To take another illustration, if the prevailing ideology describes school learning as a process of individual relation between teacher and a group of competing pupils, serving to enhance the individual pupil's effectiveness and to make him more successful in competition with others, then competitive activities within the

school are considered very important, and efforts to provide for social co-operation within the school are thought to weaken rather than to strengthen the school program. Because ideological concepts have this major significance, educational administrators clearly have some responsibility in helping to change educational ideology so that it will more closely correspond to the relevant facts and to acceptable social ideals.

There are those who believe that the administrator should not assume an active role in shaping community ideology. However, the failure to influence ideology so that it is more in harmony with actual conditions and with educational ideals has one of two probable consequences: (1) The administrator may find that he himself is under attack and that desirable changes in the school are defeated because the significance of these changes has been appraised by the public in terms of an antiquated ideology. (2) The administrator may pursue an opportunistic course, making such changes as are pressed upon him by the public or by influential groups in the community, only to find that these changes eventually lead to educational disintegration because they have been built upon public ideology about education which is quite out of harmony with actual conditions. It seems important, therefore, to examine changing ideological concepts both to anticipate their influence upon the school program and to identify points at which educational leaders must help to develop more appropriate ideology.

SOME CHANGING CONCEPTS AFFECTING EDUCATION

As it is impossible, within the space available, to make a comprehensive list of the changing concepts which should be studied by school administrators, only a few will be suggested for illustrative purposes.

The first of these changing concepts represents our ideology concerning the relation of the school to the local community and to the federal government. We have long conceived of the American community as a fairly independent organization, reasonably free to develop its own schools and to carry on the kind of life desired by its citizens. It is now becoming clear that the lives of all citizens will be increasingly dominated by the federal government and that the freedom of the local community for independent action will be greatly

reduced. This federal domination was not consciously sought by the public, but it appears to be an almost inevitable result of large-scale production, of industrial specialization, and of war. If we continue our present educational ideology, we shall conceive of the local school as a community institution, largely free from state and national control and able to work out its own problems in its own locality. I believe that the continuation of this ideology will be disastrous for our public schools. We need to change this concept of the relation of the school to government so that it is more in accord with the facts. We are then more likely to see clearly the steps that are necessary to protect and to improve education in a more highly centralized society.

A second concept to be changed relates to the importance of national unity in the educational profession. Only by raising a unified voice can educators expect adequate attention to be given education by the national government and by national groups. Large industrial organizations have already recognized this changing social condition, have changed their own conceptions, and have organized themselves for effective action in a centralized state. Education is still decentralized, and educators are still in competition. Administrators of city schools are at variance with those of rural schools. Colleges and universities seem to be in conflict at many points with elementary and secondary schools. The National Education Association, the American Association of School Administrators, the National Catholic Educational Association, the American Association of University Professors—to cite but a few organizations—are in competition rather than in co-operation. As long as each local community had large freedom to plan, to finance, and to conduct its educational program, this type of competition did no great harm. Now, however, with education being greatly affected by national forces, educational interests will not be given adequate hearing nor will they be properly represented in the ideology of the people unless educators can speak with greater unity. The public interest in education will not be protected by competition and strife within the profession.

A third prevailing ideological concept greatly influencing education has been the idea of an expanding, growing society. We have long conceived of increase in population as a normal and natural as-

pect of our nation. During the nineteenth century, cities grew rapidly in size. Industrial organizations increased production and sales at a rapid rate. Quantitative growth was a common criterion for measuring progress. Now that a stationary population is in sight, our ideology must be changed to harmonize with the implications of this fact. This stabilization will affect education at many points. It will mean an increased proportion of older people in most communities and an increasing proportion of people who have no children of school age. Normally this fact will bring a shift of group interest from the education of children to the provision of old-age security. It is extremely important that educators help to build a new concept of the significance of education which can attract the interest and the loyalty of older people who have no children of their own in the schools.

With the population no longer expanding, our concept of the occupational significance of education must be rebuilt. Now that a large majority of young people of high-school age are in high school, it is not possible for all high-school graduates to enter the professions and other white-collared occupations. Yet our ideology still conceives of high-school graduation as providing favored vocational position. If this ideology is not changed, we shall have increasing bitterness on the part of young people and their parents when they discover that their idea of the vocational significance of a high-school education is not correct. This bitterness will result in caustic criticism of the school and attacks on its effectiveness. We must build an ideology emphasizing the contribution of education to the enrichment of life at whatever level it is lived instead of trying to justify education as a means of providing special occupational privileges to the educated.

A fifth current concept of great significance for education relates to class or pressure groups in our society. The typical ideology pictures the board of education as a group of men and women selected to direct the policies of the school because they are leaders and are interested in education and in the welfare of the community. Obviously, this picture is an ideal toward which we must continually strive, but it is important that administrators recognize the increasing class structure and pressure-group organization of our society

and the way in which this organization may affect the schools. Quite unconsciously, as far as the general public is concerned, school-board members are usually selected from the middle or the upper social classes and certain dominant pressure groups. Administrators should recognize that, although these board members may have the highest intentions, they have unconscious as well as conscious biases and special interests. If administrators do not realize this fact, policies may be formulated which are not best for the public welfare. Thus school-board members drawn largely from the upper middle class in our society are likely to have a conception of education and of the responsibility of the school which has grown out of their own background and conditions and which is not an adequate conception for the entire community. For example, the board of education may assume that most of the students will go from high school into college because most of the children in their own group do so. I have heard boards of education testify that most of their graduates went on to college, when actual examination of the data showed that only 25 or 30 per cent were going to college. The impression of the middle-class board members was largely drawn from the experience in their own social group. In formulating policies on such matters as vocational education, recreational programs, provision of scholarships for the more able students, the board of education may be guided by its experiences as members of a particular class group unless the administrator recognizes these unconscious biases and seeks to present a comprehensive picture of the actual situation for his board members to use as a basis for such decisions.

These considerations lead to the great need for change in our concept of "public opinion." Previously most people have thought of public opinion as something which grew naturally out of the experiences and the interests of the vast public and was eventually focused on political and social leaders. In this way the great public expressed its beliefs and its thinking. Increasingly we are beginning to realize that this concept does not describe the situation. Pressure groups and interested individuals are taking control of agencies of communication, such as the press, the radio, and the motion picture, and are seeking to form public opinion favorable to their own interests. Furthermore, the influencing of public opinion is not simply

a presentation of an argument to the public; it operates on much more subtle bases. Arguments generally are not even seen, read, or listened to unless they appear to be closely linked with the previous beliefs of the individual reader or auditor. Furthermore, arguments achieve effectiveness, not only through their logic, but also through other important mechanisms, such as self-identification, the authority of the proponent, and the like. It is becoming increasingly necessary for the school administrator, on the one hand, to identify propaganda which pressure groups are using to influence the public regarding educational matters and, on the other, to be able to communicate educational issues and educational considerations to the public in ways that are effective. Unless the administrator is continually in touch with the ideas and the arguments regarding education which are reaching his constituency, he will not be sufficiently conscious of the educational issues developing, nor will he be as effective in presenting the educational situation to the public. This necessity implies some kind of formal or informal public-opinion poll within the community and also the collection and careful analysis of propaganda relating to education reaching the community.

We have been discussing the ideological concepts about American society and how it operates. Another important group of concepts relates to the major ideals of our people. Probably no single term is more often used to symbolize our social and political ideas than the word "democracy." This word is undergoing a transformation in meaning. Democracy has been conceived pretty largely as a political process involving voting by all adults regardless of sex, race, or income. Increasingly this conception is changing, and we are thinking of democracy as involving certain fundamental values, as a certain way of life which is broader than a political process alone. In this changing concept of democracy, the school administrator may find himself and his constituency confused. Sometimes the public will be placing great emphasis on the voting process and will fail to recognize that a democratic method of voting can be used to decide policies which are undemocratic in their effects. Similarly, in the school great emphasis may be placed on such externals of the democratic process as extensive participation in activities, student government, the following of parliamentary procedures in making decisions,

while the policies determined by such procedures may be in conflict with basic democratic values. Since "democracy" is the term which symbolizes the goals of our political and social life, it becomes important for the administrator to rethink these conceptions of democracy and to help his staff and the community develop conceptions more in harmony with an all-embracing social goal.

Other illustrations of ideological concepts significant to education can be found among our ideas about children and youth. Frequently our school practices have been guided by the idea that all children are more or less alike, each child's organs and physiological system growing at a more or less uniform rate. At the same time we have treated the development of children as a composite of somewhat isolated aspects, such as reading, mathematics, science, citizenship, and the like. Recent research in child development indicates not only that individual children differ markedly among themselves with regard to most of the aspects of importance to education but also that, within the same child, the various structures and functions of the body are developing at different rates. Furthermore, the importance of the unity of the human organism, of the integration of the child's various reactions, is becoming more obvious. Unless the school staff and the public change their conception regarding the nature of growth, they may fail to understand the need of developing practices which are appropriate to these facts of growth; they may not realize why various types of individualization of the school program are significant and why increasing attention should be given in elementary and secondary school to common objectives and to continuity of guidance and of the curriculum; they may not see the value of considering the interests and motivation of children, their attitudes, and their purposes, as well as their knowledge and skills.

Another area in which changed ideology is needed is in educational administration and supervision. The concept of leadership and how it is developed and used is particularly important. In educational administration we have spent much time in establishing lines of authority, in allocating administrative and supervisory responsibilities, and in outlining rules and procedures for regulating the relationships between the various groups engaged in educating children. We have failed to consider the actual forces which determine the effec-

tiveness of educational leadership and which influence the development of leadership among the staff. The attitudes of staff members—their hopes and fears—and the group morale, although intangible, are real factors determining the direction of a school's development and the effectiveness of administrative and supervisory procedures. We need to develop a conception of administrative leadership which includes these various factors and enables us to see how to stimulate and to influence action rather than to be misled by the apparent efficiency of legal enactments and hierarchies of administrative authority. In the Western Electric Company a most interesting anthropological and sociological study of its employees^{*} has shown that the group mores of the workers and the ideas disseminated by some of the leaders among the workers were more influential in determining the effectiveness and productivity of the work than were rules, regulations, and administrative orders. These experiments have demonstrated the possibility of improving the efficiency of an industrial plant through a program which builds on these group mores and influences the ideology of the workers. Students of educational administration need to make an anthropological and sociological study of the school staff in order to obtain a more realistic picture of the factors influencing the effectiveness of the educational program and the factors that stimulate improvement of staff members.

Another concept of importance in administration relates to the school's place in the community. There is a good deal of confusion in the minds of the lay public and of educators regarding the proper role of the school in the community. Our older ideology considered the school the only educative agency, or at least it was an independent institution with a specific, limited responsibility. Many of the more important educational functions were assumed by the family, by the church, and by social institutions other than the school. Vocational training was provided by the home, by apprentice experiences, or by specific training on the job. Because the civic problems facing a frontier society were simple, it was not deemed essential that the school should devote major attention to developing a highly intelligent and broadly educated citizen. Leisure time was limited,

^{*} Fritz J. Roethlisberger and William J. Dickson, *Management and the Worker*. Cambridge, Massachusetts: Harvard University Press, 1939.

and recreational activities were of such a nature that they required no special preparation. The school was expected to take a definite and limited phase of educational responsibility and to carry it through without much conscious effort at co-operation with the home and other educational agencies.

Conditions today require a much broader program of education because training for work, health education, citizenship education, preparation for recreation are all more difficult and more complex than could possibly have been conceived a century ago. Increasingly, it is expected that the school should discharge these functions, but there is little recognition that adequate educational opportunities in these areas cannot be provided by a single agency. The school and the home, the church, the youth agencies, the recreational facilities, the local industries—all need to be utilized in a co-ordinated fashion if a comprehensive education is to be provided our young people. We must develop a conception of education as a process embracing a variety of agencies in the community. We need to conceive of community planning councils which will help to co-ordinate these various resources in order that an effective community educational program can be provided. Furthermore, because the nature of the agencies available will vary from one community to another, it is important to recognize that variations are necessary in the school programs within the same city or state in order to utilize effectively the other educational agencies available as resources in the local communities. The prevailing concept of uniform school education throughout the city or state must be changed so that the public will have a conception of this broader educational program which will utilize the varied agencies of the community. In rural areas it may be necessary to recognize a community larger than a single school district in order that resources may be adequate to provide for this broad program of education. Several rural schools may need to co-operate in forming a community planning council to bring about effective utilization and co-ordination of the various resources for education in this wider rural community. Until these new ideological concepts are developed, the improvement of the school programs will be handicapped by the opposition of persons whose conceptions of the work of the school and of the relation of the school to the community are not in accord with this broader task of education.

PRACTICAL MEASURES FOR IMPROVING THE PROGRAM OF READING INSTRUCTION

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READING instruction is a popular pedagogical topic these days. Much has been said and written about it. It creeps into the discussion of almost any group of educators whatever the purpose of the meeting may be. Publishers are offering new books for the "remedial-reading program." Clinicians are devising intricate apparatus and procedures for dealing with anything and everything directly or indirectly connected with reading instruction. One can get attention offhand by bringing in the reading question when assembled with the brethren. Everybody is doing something about reading or, at least, is trying to create the impression of doing something. Various mechanical "gadgets" are purchased, tests galore are administered, surveys are made, and special teachers are set upon the trail of the pupil whose reading is not up to some determined mark.

It is not the purpose of this article to belittle the efforts of able and earnest clinicians, psychologists, research workers, teachers, and administrators who have made distinct and worth-while contributions to the improvement of reading instruction, nor does it seek to indicate that all this emphasis on the problem is misplaced or unnecessary. On the contrary, educators have been very tardy in attacking this most basic of all problems, and more and better research, discussion, and publicizing are needed in the field.

Of the myriad of techniques, devices, theories, materials, and mechanics with which school systems are bombarded, there seem to be three practical measures which not only can be developed by almost every school system in the country but, in fact, *must* be embraced before any of the more refined trappings, however worth-while and defensible in themselves, can be made really effective and operative.

THOROUGH KNOWLEDGE OF BASIC PRINCIPLES OF READING
INSTRUCTION ON PART OF TEACHERS

These three measures are simple and, it would seem, rather obvious. Sadly enough, they are far from universal in practice. The first is that all teachers, particularly those of primary and intermediate grades, shall have a sound and thorough understanding of the fundamental pedagogy of reading instruction. It is probably assumed that this knowledge is necessary, and administrators all too commonly assume that teachers possess the understanding when, as a matter of fact, large schools and small schools contain many teachers who are not well versed in the basic pedagogical principles of reading instruction.

It is not the first essential that teachers should know about dextrads, myopics, spastics, audiometers, eye-voice span, Snellen charts, or complicated reading-analysis tests. They should, however, know the meaning of general readiness and of reading readiness. They should know how, with the aid of their own classroom materials, their manuals, one or two professional books, and their own knowledge and observations, to make a good analysis of their pupils' readiness and to group the children and plan their work accordingly. Teachers should know how to introduce reading to beginners, or new material to more advanced pupils, in such a way that interest and success may follow. They should know the import of a basic sight vocabulary and how to develop it. They should know the value of vocabulary control and use their instructional materials in accordance with its principles. They should know the factors of independent word analysis and the technique of developing it in their pupils. They should be able, with the reading materials at hand, to measure their pupils' growth and capacity for advancement and should be able to plan increments of developmental work which will challenge their pupils without submerging them. They should have a sense for the difference between reading *for* and *with* meaning and the mere pronouncing of words, silently or orally, end to end. They should be aware of the necessity for a background of information, for oral-language facility both in speaking and in listening, and for an interest in doing and learning on the part of their pupils.

In connection with this suggestive rather than comprehensive list

of basic understandings which every teacher should have as standard equipment, it is extremely important to note that the acquisition of these fundamental skills and knowledges is well within the reach of practically every teacher at almost no financial expenditure. They are on the educational bargain counter. It is not necessary to take course upon course in summer school or in extension, though many of these courses are fine. It is not necessary to travel to distant points to sit at the feet of the masters, though, of course, such opportunities should not be shunned. It is not necessary to wait for school administrators to organize elaborate plans for study, reports, testing, surveying, and discussion, though undoubtedly such programs can be made very valuable.

What means does the rank-and-file teacher have within easy reach for developing his knowledge and skill? Probably the most valuable source is that of the reading instructional materials themselves, together with the supplementary publications of any modern series of readers. Of foremost importance in this group are teachers' manuals or guidebooks. A number of those of recent issue contain pretty nearly the sum and substance of the sound principles and practices of reading instruction. There are also pupil workbooks or companion books, with their accompanying directions, word lists, and directions to teachers in the readers themselves; advertising materials and teachers' service bulletins distributed free and freely by publishers; as well as charts, booklists, and tests which commonly accompany the modern series of readers or which can be had for the asking.

Few indeed are the teachers who cannot have at hand, or obtain access to, two or three manuals, sets of sample readers, and other valuable materials suitable for their teaching levels. These may be borrowed from a friend, exhumed from the superintendent's office, obtained on courtesy through the publishers' representatives, or purchased for a few cents each.

Furthermore, every teacher can obtain, or have access to, one or two of the best professional books on reading. It is not the first necessity to scrutinize the contents of a long bibliography. The essential knowledge can be obtained from one or two of the best known publications. Finally, teachers should use to advantage the persons

they know who are especially well skilled in the field. Practically every teacher has access to the ready advice and assistance of another teacher, a supervisor, a superintendent, a college instructor, or other person whose professional success is well established and whom the teacher can readily approach. Teachers should make use of such an individual. It will gratify his vanity and provide the teacher many semester hours of free instruction.

One general principle needs to be strictly adhered to by a teacher who follows the foregoing suggested procedures. Having attacked the job of becoming master of certain pedagogical skills and knowledges, he should pursue it with thoroughness and intensity. He should search for a technique or principle, plan its application in the classroom, note its success or failure, go back to the original or other sources for checking and for further assistance, and repeat the process until that principle or technique is really a part of his understanding and teaching habit. He must not be satisfied with perfunctory knowledge or a slipshod application of knowledge.

It has probably been the fault of our pedagogical enthusiasm that we have read so widely and talked about so many things in connection with our program of reading instruction that we have failed to obtain fundamental mastery of basic things. Some concentration on primary objectives will bring far better results for great masses of pupils than the skirmishing maneuvers now all too common on a broad and scattered educational front.

USE OF THE BEST INSTRUCTIONAL MATERIALS AVAILABLE

A second major fundamental means of improving reading instruction is to improve both the quality and the quantity of the materials of instruction placed in the hands of teachers and pupils. It is a truism that a good mechanic insists on good tools, well selected for their purpose, varied enough to meet his needs, and well maintained in condition and quantity. It is equally true that classroom results can be tremendously enhanced by providing good tools of instruction.

Fortunately the materials of reading instruction available today are vastly improved over those on the market scarcely more than half a decade ago. Publishing houses have done a masterful piece of

work in developing reading series which are scientific, interesting, informative, teachable, and comprehensive. Vocabulary control has been accomplished without sacrificing appeal to the pupil. Picturization is highly attractive, with increased value for developing concepts and understanding. As indicated before, teachers' manuals furnish excellent treatises on the philosophy and the principles of reading instruction, as well as practical and usable guides to day-by-day instruction. A thorough testing program is now an available feature of several basal reading series. Probably the finest development of all has been the publishing of carefully planned intermediary readers to serve supplemental purposes or to provide additional materials on slightly varying levels of difficulty or achievement.

It is not to be concluded that the use of better reading materials will solve the whole problem of reading instruction. But in view of the inherent difficulties involved in the program, to attempt its consummation with anything less than the best materials available is sheer folly. In this day, rife with defense-training programs, vocational-training courses, education for democracy, and programs for the nonacademic pupil, some small portion of the time and energy of administrators, school boards, and teacher committees might well be diverted to the replacement of antiquated and ineffective reading materials with the greatly improved materials now available.

The number of school systems, many of some size, still inhibiting teachers and pupils with materials of reading instruction grossly inadequate in quantity and inferior in quality is not less than astounding. Many school administrators would blush in shame to show shops, gymnasiums, and laboratories as much neglected in essential equipment as are their classrooms with respect to reading equipment. Yet the solution of the problem is not one giving rise to particular difficulties. There is a normal replacement demand for reading materials from year to year. If only these replacement needs are made to serve the purpose of supplying fresh and improved materials, an unduly long time will not be required to revamp the entire supply.

In the effort to improve reading materials in a school system, several factors should be borne in mind. The use of one or more central distribution points will make it possible for the same quantity of materials to serve many more pupils than will a static supply

in each classroom. Since the common practice is to divide the enrolment of each classroom into several groups for instructional purposes at different levels, small numbers of readers, workbooks, or tests may be requisitioned as needed from the central source of supply. For example, instead of thirty each of preprimers, primers, and first readers in a classroom, with approximately two-thirds of each standing idle at one time, the required number of each may be obtained as needed from the central source, the remainder thus being made available for use elsewhere. Hence the total quantity of any one kind of material on hand may be reduced and funds thus released for purchasing supplementary readers, library books, or reading materials useful in the content and the informational fields.

It is also important to note that care should be exercised in selecting reading materials. Though such materials should be modern, the latest copyright date is hardly a sufficient criterion by which to make a selection. A careful study should be conducted, preferably by teacher committees, and selection made only after consideration of a wide variety of factors which affect the merit of the materials. If the materials are for basal use in a program of systematic instruction, attention should be given not only to basal readers but also to manuals; workbooks; supplementary readers of the series; and teaching aids, such as tests, flash cards, and charts.

HONEST ENDEAVOR IN THE CLASSROOM

The third and final element of a strong program of reading instruction is that of good, sound work. Too commonly it is assumed that methods, materials, techniques, and devices can replace this all-important commodity. There is no substitute for industry and labor. While it is folly to expend energy ceaselessly without knowing how or why and without the use of good tools, it is equal folly to expect gratifying results without a large measure of honest endeavor in the classroom.

Teachers frequently become habituated to the use of commercial materials to such an extent that teacher-made or class-developed materials fall into disuse. Yet there are many times when, to suit a special purpose or an individual need, the teacher can prepare or assemble more valuable material than can be purchased. Also there

are many needs for learning materials which are not properly met by sole reliance on the orderly procession of commercial materials, no matter how splendidly edited those may be. The preparation of items for particular purposes requires forethought and some additional time before or after regular classroom hours.

It is also important that the periods of instruction and developmental teaching shall be conducted with vigor and energy. Good results cannot be obtained by desultory teaching. Pupils will not be stimulated to intellectual and spiritual activity by a teacher who lacks "spark" and radiant energy. It is not to be expected or desired that teachers or pupils can profitably maintain a fast tempo throughout the entire course of a school day, nor should mere bustle and "fussing" be mistaken for hard work. Pupils and teachers must, however, "bear down" at proper times if interest, continuity, concentration, and productivity are to be obtained.

The teacher who is a good worker knows how to find and utilize *extra minutes in the day's program for drill, special help, and other small instructional tasks*, of which there are many. Minutes are wasted, day by day, in getting started at the opening of sessions. Changing of periods or activities is also a frequent time-waster with the teacher who is not a good manager or who is likely to follow the easy course. Dismissal times may lose many minutes and consequent teaching opportunities for the teacher who is not a skilled and ardent worker. Yet these minutes offer time enough to recheck one pupil's written work, to help another with a special difficulty of the morning's lesson, to rehearse another on the analysis of words, to review a difficult assignment with a group of two or three, to select an extra book for still another and induce the pupil to read it independently. Time is found for putting things on the blackboard, to place charts, to distribute work materials, to tell a story or hear one from a pupil, to read a poem or show a picture, to inspect and admire a pupil's accomplished work, to help those who have been absent. These and many more educative experiences mark the day-to-day accomplishment of the teacher who is a good worker.

It is also an all too common belief of teachers that no really substantial work or learning can be achieved during the last half-hour of the school day, the last half-day of the week, or the last month of

the school year. On the contrary, these periods may often bear the rich fruitage of all the season of soil preparation and cultivation that has gone before.

The cumulative results of thoroughgoing work are often astonishing. Many pupils can be given the small but much-needed aid at the right time. Many bright pupils can be constantly stimulated to efforts which utilize their abilities. Furthermore, the psychological effects of an energetic and efficiently working teacher may readily outweigh the direct effects of such efforts. Good work habits are inculcated; procrastination finds poor soil for its roots; boredom and impatience are infrequent; and a much better classroom morale and general attitude are maintained.

It is not to be construed that teachers shall be drudges. Long pre-school and postschool labor are not advocated nor deemed necessary. Nothing more is asked than that the normal working day shall be *honestly* and *completely* utilized by a teacher in good physical, intellectual, and spiritual condition.

On the basis of these three fundamental principles for developing a program of reading instruction, the school may hope to have less need for "remedial-reading" programs and, consequently, better ones; fewer clinical cases and these more carefully and expertly treated; less need for highly technical professional knowledge in the field but more opportunity to make it functional; fewer disability cases requiring parleys, mechanical devices, highly specialized tests, and special instructional programs, but such cases more surely sorted out and treated.

SPELLING LESSONS AND ABILITY TO SPELL

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IN TEACHING spelling, many schools are using workbooks or spelling lists which give a certain set of words to be learned each semester of each year. This method rests on the assumptions that teaching a word at a given time makes a distinct and important contribution to the growth of the ability of pupils to spell each word correctly and that any gain in mastery when a word is taught is a permanent gain. The poor spelling achievement frequently found in written work and the low achievement on general spelling tests raise serious question about these assumptions. If it were true that teaching a word in a certain grade developed continuing skills to spell that word, then pupils above Grade IV should encounter no difficulty with such words as "there" and "too." Possibly present methods of teaching spelling are not making significant contributions to children's ability to spell.

In 1935 Curtis¹ presented data about the growth of ability to spell certain words which raise further question on the effectiveness of present methods. His study showed that ability to spell a word which had not been taught made very nearly the same kind of growth as did the ability to spell a word which was taught in a certain grade. Curtis and Dolch² more recently have raised the question, "Do spelling-books teach spelling?" One of their conclusions was that "most of the learning of spelling seems to be done before the year of teaching or after that year." These reports warrant further study, at least, of the effect of teaching on mastery in spelling.

The present investigation was undertaken in order to determine

¹ S. A. Curtis, "Maturation as a Factor in Diagnosis," *Educational Diagnosis*, pp. 169-87. Thirty-fourth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1935.

² H. A. Curtis and E. W. Dolch, "Do Spelling-Books Teach Spelling?" *Elementary School Journal*, XXXIX (April, 1939), 584-92.

the effect of instruction in spelling and to discover whether the findings of the earlier investigators would be confirmed. It was hoped also that such a study would point to a method which would improve spelling instruction. In March, 1939, fourteen words were given in a test to the pupils in Lakewood elementary schools in Grades III, IV, V, and VI. On October 3, 1939, another group of thirty words was given in the same grades. In the ten elementary schools in the four grades involved, approximately 2,250 pupils were enrolled. In October, 1939, the "A" sections—the high semester of the grades—were smaller, ranging from 176 to 239 pupils each. The "B" grades ranged from 300 to 400 pupils each. In March the numbers were nearly the same. The tests were given by the teachers, who employed similar methods and the usual care in giving such tests. The percentage of pupils spelling each word correctly was calculated for each half-grade. These percentages were then transferred to graphs. The percentages for twenty-seven of these forty-four words are presented in Table 1 and graphically in Figure 1. The graphs of the words omitted are similar to those presented.

In the spelling material in use in this system before these tests were given, separate lists of words were given in workbooks for each grade. The number of words carried over for review from year to year was less than 5 per cent of any list. The workbook was based on the test-study-test method and made little provision for study of words not in the given list. Approximately six hundred words were assigned each year. During the fifteen minutes allotted to spelling each day, the workbooks were followed rather closely. A study of the scores of 198 pupils in Grades III, IV, and V showed that on a similar list 93 per cent of the words assigned had been spelled correctly. These tests were random samples of words studied during that semester.

An X on the line on the graph indicates the semester or time interval when the word was taught as a part of the regular spelling work. Graph I is read as follows: The word "built" tested in October was spelled correctly in Grade III B by 6 per cent of the pupils. It had not yet been taught to the pupils in this grade but had been taught to the pupils in Grade III A at the time the test was taken. In Grade VI A mastery had risen so that about 81 per cent of the pupils spelled the word correctly.

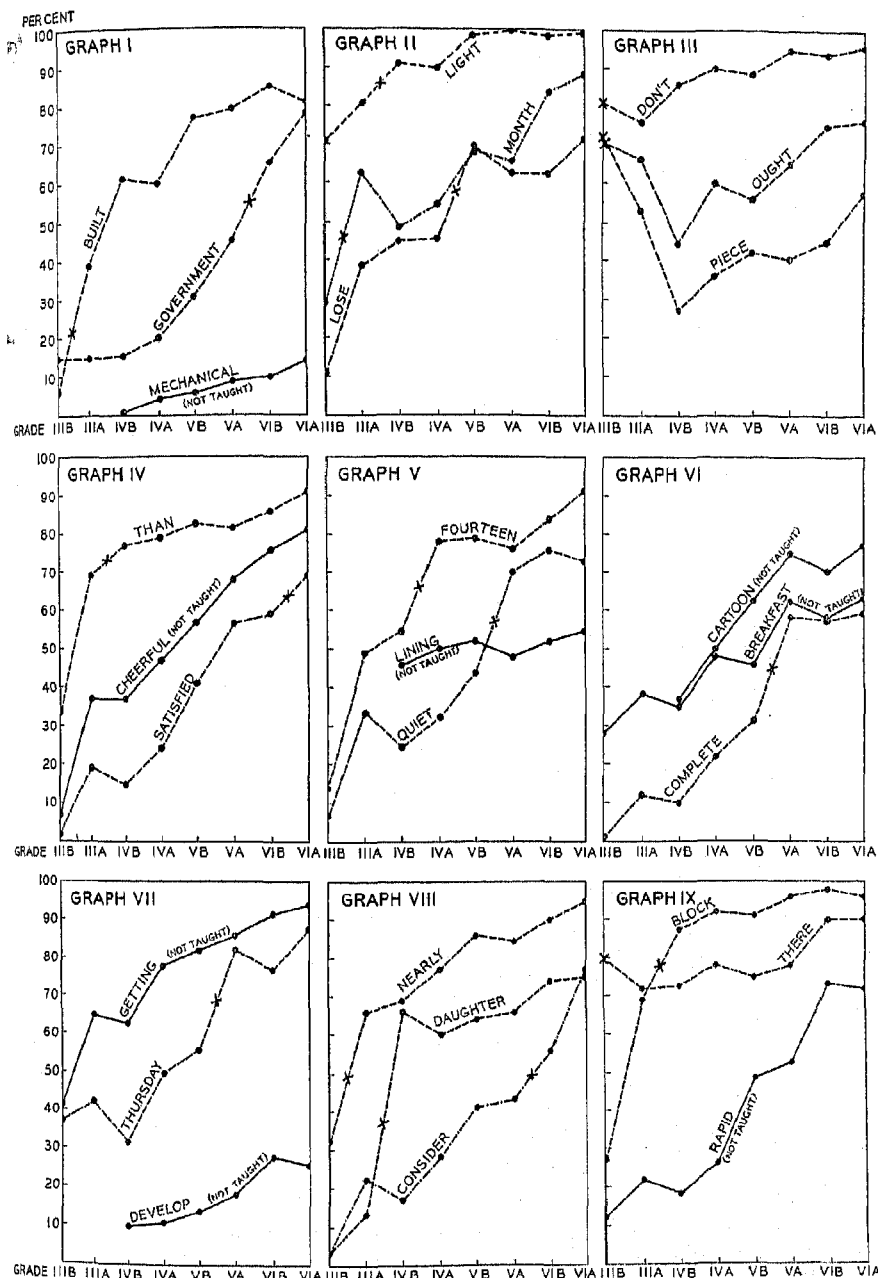


FIG. 1.—Percentages of correct spellings of twenty-seven words on tests given in March and October, 1939, to 2,250 pupils in Grades III B to VIA. A cross on the line shows the grade interval at which the word was taught.

The arrangement of words in the graphs follows no particular order, the words being grouped so that the lines do not cross a great deal. Graph III gives words which show the most distinct drop in percentage right after teaching. Graphs I, IV, V, VI, VII, and IX show growth of words which were not taught.

TABLE 1

PERCENTAGES OF CERTAIN WORDS SPELLED CORRECTLY BY PUPILS IN GRADES III B TO VI A ON TESTS GIVEN IN MARCH AND OCTOBER, 1939*

Word	Graph	Date of Test	Grade III B	Grade III A	Grade IV B	Grade IV A	Grade V B	Grade V A	Grade VI B	Grade VI A
built.....	I	October	6	38	61	60	77	79	85	81
government....	I	March	15	15	16	20	31	45	65	78
†mechanical....	I	October	.....	.....	1	4	6	8	10	14
light.....	II	March	71	81	91	90	98	100	98	99
lose.....	II	October	11	38	45	46	69	63	63	72
month.....	II	October	29	63	48	54	68	66	84	88
don't.....	III	March	81	76	86	90	88	95	94	96
ought.....	III	March	71	66	44	60	56	65	75	76
piece.....	III	March	72	53	27	36	42	40	45	57
than.....	IV	October	33	69	77	79	83	82	86	91
satisfied.....	IV	October	2	19	15	24	41	57	59	69
†cheerful.....	IV	October	7	37	37	47	57	68	76	81
fourteen.....	V	October	14	49	55	78	79	76	84	91
quiet.....	V	October	7	33	24	32	44	70	76	73
†lining.....	V	October	.....	.....	46	50	52	48	52	55
†cartoon.....	VI	October	.....	.....	37	50	62	75	70	77
†breakfast.....	VI	March	28	38	35	48	46	62	58	63
complete.....	VI	October	1	12	10	22	31	58	57	59
Thursday.....	VII	March	37	42	32	50	56	82	77	87
†getting.....	VII	March	41	65	63	78	82	86	91	94
†develop.....	VII	October	.....	.....	10	11	14	18	28	26
nearly.....	VIII	October	32	66	69	77	86	84	90	95
daughter.....	VIII	October	3	13	66	60	64	66	74	75
consider.....	VIII	October	3	22	17	28	41	43	56	77
block.....	IX	October	27	69	87	92	91	96	98	96
there.....	IX	March	80	72	73	78	75	78	90	90
†rapid.....	IX	October	12	22	18	26	49	53	73	72

* The percentages in boldface type are the percentages made by the grade in which the word had just been taught.

† The words marked with a dagger were not included among the spelling words taught.

Does teaching a particular word in a certain semester make a distinct and sustained contribution to the pupils' mastery of that word? Of fifteen words taught between the test in Grades III B and VI A, the following eleven words showed gain during the semester of teaching of more than 15 per cent: "built" (Graph I), "government" (Graph I), "lose" (Graph II), "month" (Graph II),

"fourteen" (Graph V), "quiet" (Graph V), "complete" (Graph VI), "Thursday" (Graph VII), "nearly" (Graph VIII), "daughter" (Graph VIII), and "block" (Graph IX). For four of these eleven words, growth at the time of teaching was followed by drop in mastery or lack of any further increase during the two following semesters. These words are "lose," "month," "fourteen," and "daughter." For three others—"complete," "quiet," and "Thursday"—the gain in the next two semesters was small. Apparently there was distinct and sustained growth in mastery for only four words out of fifteen taught at a particular time. These data certainly indicate again that question needs to be raised concerning the effectiveness of teaching spelling.

Further study of these graphs shows that each word, whether taught or not, has a general curve of mastery and that teaching tends merely to disturb, but not seriously to change, the general growth curve. If a pencil is laid on the line for the word "complete" (Graph VI) so that it tops the graph at Grades VI A, V B, and III B, an interesting thing will be seen: the general trend of growth from Grade III B to Grade V B before teaching is pushed out of line when the word is taught but is again resumed two semesters after teaching. What did the teaching accomplish? This same thing in general is true of six other words: "month" (Graph II), "fourteen" and "quiet" (Graph V), "Thursday" (Graph VII), "daughter" and "nearly" (Graph VIII). In a similar way for six other words, growth during the semester taught was no greater than for semesters before or after teaching. For these words, teaching merely continued the trend of growth or mastery. These words are "government" (Graph I), "light" (Graph II), "than" (Graph IV), "satisfied" (Graph IV), "consider" (Graph VIII), and "block" (Graph IX). Thus, for thirteen of nineteen words taught in a particular semester, teaching seemed merely to carry on, or merely to disturb temporarily, the normal curve of growth and mastery. Of the six remaining words which were taught, two words—"ought" and "piece" (Graph III)—show such serious drops after teaching that certainly teaching made no permanent contribution to the mastery of these words. Thus, for at least fifteen of nineteen words, teaching seems to have had no permanently beneficial effect on the curve of mastery.

Study of the graphs for the words which were not taught further indicates that teaching a particular word in a particular semester is not important in developing mastery. Of eight words not taught, the graphs of four—"cheerful" (Graph IV), "cartoon" (Graph VI), "develop" (Graph VII), "rapid" (Graph IX)—are not distinctly unlike the graphs of those words which were taught.

From these data the conclusion seems justified that teaching a particular set of words in a particular semester, as was done here, does not make a distinct and continuing contribution to the growth of ability of pupils to spell those words. This study also suggests strongly that much more attention must be paid to the problem: How do children learn to spell?

In the light of these and other results, the plan for teaching spelling in Lakewood has been changed. A cumulative spelling list of 1,035 selected words is now provided for Grades III-VI, inclusive. At the end of each grade pupils will be expected to spell all the words in the lists up to and including those given for their own grade. More attention is being given to spelling in all written work. About half of the spelling time is being given to study of words selected by pupils and teachers from social studies, arithmetic, and other work. Emphasis is being placed on varied, interesting, and effective methods of studying spelling.

REALITY IN THE LANGUAGE PROGRAM

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GROUP life in a democracy demands of practically all participants such specific abilities as formulating a point and stating it clearly; speaking without self-consciousness in group discussion; commanding an adequate and discriminating vocabulary in varied situations; interesting a group or another individual in conversation; and writing a letter which states the point adequately and yet concisely. Urges to self-expression within the individual and pressure from without for group socialization relate directly to his adequacy in English. Despite the clear conception (which was early expressed by such teachers as Leonard¹) of the function of the English program in developing personality and in achieving socialization of the individual, and despite the richness of the modern program as it functions in many instances, general practice appears to lag.

Classroom teachers continue to work toward the goal of a narrow precision in speaking and writing and continue to provide practice through artificially motivated situations, such as "floor talks"; planned conversations; letter-writing by children to parents, teacher, classmates, or others to whom it would be natural to speak rather than to write. Curriculum-makers continue to treat the functions of language as content, rather than recognizing that life, in school and out, is the basis of the language program.

Administrators in the elementary and in the secondary schools continue, through departmentalization, to divorce English-teaching from social studies and from science and to disregard the fact that the content fields would give pupils something to talk about and to write about. Specialists continue to do their research in the narrow field of grammatical usage. Test-makers continue to evaluate formal

¹ Sterling Andrus Leonard, *English Composition as a Social Problem*. Boston: Houghton Mifflin Co., 1917.

skills and to ignore the importance of power, fluency, and emotional responsiveness in expression. Publishers turn out torrential floods of workbooks which assume that written practice on selected items of usage will improve the pupil's diction. Supervisors continue to ride hobbies, emphasizing dramatization, creative writing, choral verse, in turn, while failing to keep before teachers the wholeness of the language program.

Meanwhile, reality in the language program demands (1) vitality of the total school program; (2) emphasis on those functions of language which are used most in everyday life; (3) recognition of the needs, the potentialities, and the limitations of the group of children in any given situation; (4) recognition of stages of growth and the evolving nature of child development.

VITALITY OF THE TOTAL SCHOOL PROGRAM

Children who are so situated that they are learning and growing in all their life and school activities are, in general, those who are learning and growing in their uses of language. Their school program recognizes that language functions throughout the day, that it is part of everything that takes place, that it cannot be learned in isolation.

Language must be the outgrowth of experience. With a given class of children it is desirable that many of these experiences be common to the whole group, particularly those experiences which form background, concepts, and understandings, which many children lack on coming to school. . . .

The general school environment gives that preliminary common experience. Materials are touched and manipulated. Books and pictures are examined. New impressions come to the child, through hearing, through his muscles, and through other sense agencies. He is getting, moreover, experiences with other children, who are also reacting to their environment. These reactions bring into being new situations, which, in turn, create specific problems and interests.

As soon as specific interests develop, new experiences must take place in the classroom. Pets, plants, and experiments are but a few of such experiences which stimulate increasing need for communication and self-expression. Nor need all experiments be of the physical sciences. Groups may try out various social experiments such as tentative plans to share responsibility and work as well as pleasure. Possible classroom experiences which involve more than material contact are parties, festivals, celebrations, and games.

Excursions away from the classroom widen and deepen the range of experience and often grow out of, or lead into, specific units of work. . . .

As the real experiences begin to form background, many vicarious experiences are added through the use of toys, posters, lantern slides, books, poems, songs, lectures, and models. Hence the language outcomes are outgrowths of the total situation in which children live together as a social unit and make contacts with educative experiences.¹

Such a setting creates immediate and real opportunities for conversation and discussion as well as a necessity for the child's contribution. The following situations provide typical opportunities of the kind at first-, second-, and third-grade levels:

1. Coming together of a small group to solve a problem of immediate interest, such as:
 - a) Meeting of the committee to plan the rabbit house
 - b) Meeting of the housekeepers to decide the division of labor
2. *Assembly of the class for definite purposes*, such as:
 - a) To hear a report from the school council or from the room council
 - b) To plan the day's work or plan an excursion
 - c) To have a practical check-up at any time needed in terms of: "Have we accomplished what we planned?" "What must we do next?"
 - d) To consider new information related to the unit of work in progress or an interest being pursued²

A recent course of study has the following to say with regard to the place of discussion in the middle grades:

In the intermediate grades, discussion arises naturally in connection with the work children are doing, or wish to do. Its purpose is usually that of arriving at some plan of group action, evaluating what has been done, or exchanging ideas and acquiring new points of view on a current topic. How much a child participates depends largely upon his general experience, upon the attitude of the group in considering his ideas, and upon the kind of person he is. Whether he participates much or little, however, discussion gives to the child a chance to develop a less prejudiced mind, an opportunity for critical thinking, and the possibility of acquiring new interests, curiosities, and standards. All of these will be invaluable in later life, for the community requires citizens capable of discussing various points of view in an impartial way.³

The units developed in a live social-studies program may prove to be rich in English outcomes. A fourth-grade group studying trans-

¹ "Tentative Course of Study in Language Expression for the Kindergarten-Primary Grades," pp. 3-4. Cincinnati, Ohio: Cincinnati Public Schools, 1938 (mimeographed).

² *Ibid.*, p. 23.

³ "The Proposed Guide to Child Growth in English, Grades Four, Five, and Six," p. 49. Cincinnati, Ohio: Cincinnati Public Schools, 1939 (mimeographed).

portation¹ listed about two hundred words with which they dealt consciously for the first time, beginning with "altimeter" and "anchor" and ending with "valve" and "wharf." The same class listed fifty questions which they had organized in their study, ranging through such examples as: "Why do we have traffic lights? How do they work?" "How does an engineer know when another train is on the track?" "What are the chief air routes in our country and around the world?"

A similar group in their study of Mexico² planned excursions, kept diaries, prepared exhibits, organized talks to explain the items, and planned and wrote an issue on Mexico for the monthly school magazine. They invited a Mexican child who had recently enrolled in a nearby school to talk to them. They wrote the following letter to her classmates in the Mexican school from which she had come.

DEAR MEXICAN FRIENDS,

Alicia Gonzales paid us a visit yesterday and told us many interesting things about your country and brought Mexican articles to show us.

We were very much pleased with the serape and sombrero for we do not wear these things in Cincinnati.

In our classroom we have a little Mexican museum to help us in our study of Mexico. We have learned some of the songs of your country like "La Cucaracha." When Alicia was here, we sang it for her in English, and she sang it for us in Mexican. In our fourth grade there are thirty-one children who have all taken Mexican names.

Our study of Mexico is a lot of fun. We are trying to imitate the people of your country by making small serapes and clay pottery. Will you please help us in our study by telling us about your school, your playmates, and your toys? We would also be interested in knowing about the village you live in and your musical instruments. We hope you will write to us soon.

YOUR AMERICAN NEIGHBORS

EMPHASIS ON FUNCTIONS OF LANGUAGE MOST USED IN EVERYDAY LIFE

The language needs of practical life are centered largely in a few types of communication. These the school recognizes in its present-day emphasis on conversation, discussion, telephoning, taking part

¹ "A Proposed Guide for Social Studies, Grade 4," pp. 84-88. Cincinnati, Ohio: Cincinnati Public Schools, 1939.

² *Ibid.*, pp. 40-41.

in a meeting, letter-writing, reporting, and so forth. However, reality in the language program does not imply limiting the program to the practical uses of language. It does imply that the original and creative uses of language shall grow out of a full, rich, and realistic experience.

RECOGNITION OF THE NEEDS, POTENTIALITIES, AND LIMITATIONS OF THE CHILDREN

The school must consider the kind of community that it serves. A typical large city may include: (1) the suburban neighborhood with good cultural background; (2) the foreign-language community; (3) the poverty-stricken neighborhood of low cultural level and transient population; (4) the Negro community at a low economic and cultural level presenting problems peculiar to itself, such as children with extremely limited experience; grave speech defects, including articulation as a major problem; vocabulary learned largely from illiterates; and idiom actually different from the prevailing speech.

When the teacher recognizes the limitations of each group of children and has a sufficiently clear vision of the possibilities of the language program, she challenges the ablest group with a rich and varied program or meets the least able on their current level and finds new ways to lead them to desire new standards.

Superior children from economic backgrounds sufficient to insure security and the necessities of life, plus a cultured home and reasonably cultured immediate neighborhood, may be expected to achieve results such as the following: A third-grade class from a privileged community planned, through group discussion, a whole series of excursions; listed the purposes of their visits; outlined preliminary questions previous to each excursion; wrote letters asking permission to visit and letters of appreciation following the visits; wrote summaries of the excursions and other types of reactions; and organized a large book in which they kept all the written records relating to the excursions. Although the excursions were spread over five months, interest grew rather than lagged. The whole project was sustained on a high intellectual level. The language outcomes were evident in tremendous growth in vocabulary, a great number of discussions,

and a wide variety of written forms of expression; in the beginning of a sense of organization, as evidenced in their power to group questions, to plan reports, to write a table of contents for their book; and in all matters of written form, penmanship, punctuation, spelling, and paragraphing.

It may be extremely difficult for the school to develop an English program that relates to the lives of the children at the other end of the social scale. It is harder for the teacher to find and to build upon the constructive interests of the children of low-type communities; for the teacher usually lacks contact with this level of society, and often constructive interests appear to be missing. Teachers of underprivileged children are likely to find deplorable lacks in the tendency of these children "to explore, question, create, co-operate, enjoy, and understand relationships."¹ The average home has contributed much to the child's potentialities along these lines. Naturally the below-average home in the low-culture community has contributed too little. Rich, vivid, satisfying experiences with important aspects of life must be built up, in the main, through school activities.

Teachers who have faith in the inherent possibilities of children have found that, with opportunity, the pupils improve much in the ability to pursue interests that are real and urgent—such interests as may grow out of social-studies units properly selected and vitalized by excursions and investigations, out of science interests built up through some real contact and experimentation, and out of reading interests properly stimulated through wisely chosen books of the proper levels of difficulty.

RECOGNITION OF GROWTH STAGES AND THE EVOLVING NATURE OF CHILD DEVELOPMENT

Children develop at different rates in accordance with their mental ability and physical condition, the high or low stimulus value of their home and community environment, and the differences in their educational opportunities.

Language growth cannot be considered as a matter of single skills, but as a *matter of total development*, with its roots in the child's general background, his

¹ "The Proposed Guide to Child Growth in English, Grades Four, Five, and Six," p. 5. Cincinnati, Ohio: Cincinnati Public Schools, 1939 (mimeographed).

personality, his environment, his emotional balance, and his intelligence. Any program of procedures should keep these conditioning factors as well as the language aims in mind, and should provide for recognition of stages of growth and levels of achievement. Each child must proceed from where he is to the next desirable stage regardless of his grade placement and regardless of any goals and standards traditionally attached to his grade or his age.¹

The teacher who understands the nature of child growth does not demand, from a group or from an individual, skills or abilities that will normally arrive later. Some measure of skill probably can be forced by drill procedures, but premature achievement means sacrifice of the activities normal to the stage. On the other hand, no child should be kept dawdling at things below his level of ability and interest. The alert teacher recognizes the differing abilities of individuals, makes the most of the potentialities of each stage, and leads the child through careful transition steps to the next stage.

For practical purposes the following four stages in language development may be assumed during a child's primary-school life.² These correspond only roughly to his grade placement.

1. At the beginning of the kindergarten year it is noted that marked tendencies toward disregarding the group, shyness, and inattention characterize the behavior of the child.

- a) He is egocentric and asocial.
- b) He employs conversation largely for his own satisfaction.
- c) He talks in the presence of others rather than to others.
- d) He gives only momentary attention to group discussion.
- e) He is often stimulated by the other child's story to an irrelevant story of his own—usually imaginary.
- f) He uses conversation to develop and accompany thought.
- g) He is still experimenting with sound.
- h) He confuses words.
- i) He asks numberless questions.

2. At the end of the kindergarten year certain tendencies, which result from group living under the guidance of the teacher, are observable in the child's behavior.

- a) He takes pleasure in communicating with others.
- b) His conversation and discussion relate more to interests of the whole group.

¹ "Tentative Course of Study in Language Expression for the Kindergarten-Primary Grades," pp. 5-6. Cincinnati, Ohio: Cincinnati Public Schools, 1938 (mimeographed).

² *Ibid.*, pp. 11-13.

- c) He is able to converse on one topic for a longer period of time.
- d) He refers to stories he knows, experiences he has had, or things he has seen, that relate to the topic.
- e) He is stimulated by the contributions of others to tell relevant experiences of his own.
- f) He makes use of more mature expressions:
 - (1) Larger and more meaningful vocabulary.
 - (2) Improved language structure.
 - (3) Improved grammatical forms.
 - (4) Tendency to correct himself and others on such forms as "I seen," "he done it," "me and him," "ain't."
- g) He responds to the demand to make himself heard and understood . . . by speaking more distinctly and by addressing the group [a result of the attitude of listening developed in the group].
- h) He carries on brief conversations, with another child, or with two or three, at the tables, workbench, or other interest centers.
- i) He may wait voluntarily for attention before speaking.

3. During the first year of regular school work the child who has made normal progress develops increasing facility in the use of language.

- a) He shows increasing understanding of when to talk and what to talk about.
- b) He takes more consistent part in group discussion, showing some measure of sustained interest.
- c) He shows more conscious interest in the meanings and in the correct and fitting use of words.
- d) He shows some ability to organize logically and chronologically an experience or a story that he tries to relate.
- e) He is able to carry a simple message.
- f) He is interested in learning to communicate in writing.
- g) He gains increased confidence in himself.

4. The characteristics listed below are the outcomes toward which all experiences with language in the lower elementary school should lead.

- a) The child's greater control of experience is reflected in:
 - (1) Increase of vocabulary to the point of use not only of names contacted but of phrases descriptive of processes and relationships.
 - (2) Clearer recognition of sequences of time and order of happenings.
- b) He recognizes varied needs for written expression.
- c) He differentiates between types of expression to suit occasions.
- d) He shows increased power over sentence structure.

- e) He shows the beginnings of power to relate a series of sentences in logical sequence to each other.
- f) He shows rapid growth of meaningful vocabulary, as contrasted to acquisition of words through sheer imitation in appreciation of their sound values.
- g) He enunciates more clearly, pronounces more carefully, and uses a more pleasing voice.
- h) He shows some appreciation of the significance of written words.
- i) His developing language consciousness causes him to seek help or to offer help in a given situation such as:
 - (1) The right word to use.
 - (2) How to say a thing more clearly.
 - (3) How to spell or punctuate.

Jenkins¹ recognizes a different series of stages which cover the child's elementary-school life: (1) the period, which extends from the infant's first attempts to use sound in relation to meanings through the nursery school and kindergarten age, when he is developing in the use of language as part of his socialization; (2) the period which involves his growth of assurance in social use of language and frequent need for oral and written language; (3) the period of rapid growth in control of oral and written language; (4) the period of wide use of functional centers, including conversation, discussion, and letter-writing.

In summary, the school which seeks reality develops language as part of the whole school program; emphasizes those functions of language that children use and will use in daily life; recognizes individual differences in abilities, achievements, and interests; recognizes the different growth levels of the elementary-school child and develops the program in terms of these levels.

¹ Frances Jenkins, *Language Development in Elementary Grades*, pp. 11-12. New York: Thomas Nelson & Sons, 1936.

GRADE PLACEMENT OF COMPUTATIONAL TOPICS IN ARITHMETIC

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THIS article reports an investigation of the grade placement of computational topics in arithmetic in Grades I-VI by authorship. The problem involved an examination of eight series of arithmetic textbooks, all of which have been published since 1937. Since some of the series did not include textbooks for Grades I and II, additional number-books and workbooks published specifically for those grades were included in the study.

The procedures followed in analyzing the content of each book involved an examination of each page, the table of contents, and the index. Charts were developed for each grade showing the grade level at which a given topic or process was introduced and taught by each author. In view of the limited scope of the study, no attention was given to methods, teaching techniques, or the physical characteristics of the books.

HISTORICAL DEVELOPMENT OF THE ARITHMETIC CURRICULUM

Before the results of the analysis are considered, it is advisable to review briefly the development of the arithmetic curriculum and to note some of the modern viewpoints with regard to the grade placement of its content.

Dalrymple (10) recognizes four distinct periods in the development of the arithmetic curriculum: the Colonial period up to 1821, when practical business arithmetic was gradually introduced; the period from 1821 to about 1890, characterized by the systematization of the subject; the period from 1890 to 1911, in which disciplinary values were questioned; and the present period, in which functional values have been stressed. In the two later periods more emphasis has been placed on those topics of arithmetic thought most functional in the business of making a living.

Changes in our economic and social order have brought about the introduction of various practical topics while at the same time there has been a reluctance to omit topics which have become obsolete. Early attempts were made, however, to eliminate many topics. Metter (4) reports the elimination by the Boston school board, in 1887, of certain topics, including mensuration of the trapezoid, trapezium, prism, pyramid, cone, and sphere; equation of payments; exchange; compound proportion; and partnership. As late as 1925 the Department of Superintendence recommended the elimination of approximately twenty obsolete topics (7).

Recognition must be made of the present emphasis on insurance, household budgets, taxes, simple accounts, commercial forms, graphs, drawing to scale, investments, instalment buying, practical measurements, and applied trade mathematics. Many of these topics are recent additions, and they indicate rather clearly present trends.

The points of view held by leaders in the field of arithmetic exert significant influence on arithmetic content and its grade placement. The spiralized treatment advocated by some authorities; the unitary treatment urged by others, such as Wilson, Stone, and Dalrymple (10); and the functional emphasis given in the study made by the National Society for the Study of Education (6), have their implications for the grade placement of arithmetic topics and processes.

One controversial phase of the allocation of arithmetic content is that pertaining to the emphasis that should be given the subject in the primary grades. The opinions of Morton (5) would indicate that children, upon first entering school, have definite needs and uses for arithmetic and that there is no better time to begin the teaching of it. Investigations by Buckingham and MacLatchy (2) and by Hinman (3) give additional evidence that entering pupils have a significant knowledge of number and are able to work successfully with many number situations. Significant as a scientific approach have been the extensive investigations by the Committee of Seven (8, 9), in which minimum and optimum mental-age levels were established for determining the curriculum placement of arithmetic topics and processes.

In summary, the following tendencies and trends may be noted in

TABLE 1

GRADE PLACEMENT OF COMPUTATIONAL TOPICS IN ARITHMETIC
IN RECENT TEXTBOOKS

TOPIC	NUMBER OF BOOKS PLACING TOPIC IN GRADE							
	I	II	III	IV	V	VI	VII	VIII
Number of books examined.....	4*	6*	8	8	8	8	7	7
Number system:								
Counting.....	4	6						
Reading numbers.....	4	6						
Writing numbers.....	4	6	8	8	8	8		
Ordinals.....	4	5						
Roman numerals.....		4	6	8	6	3		
Addition:								
Easy.....	3	6	8					
Complete.....		6	8			Mastery		
Subtraction:								
Easy.....	3	6	8					
Complete.....		6	8			Mastery		
Multiplication:								
Easy.....			8					
Complete.....				8		Mastery		
Division:								
Easy.....			8					
Complete.....				8		Mastery		
Fractions:								
Meanings.....	3	4	8	8	8		Mastery	
Addition and subtraction.....		1		3	8	8	Mastery	
Multiplication and division.....					5	8	Mastery	
Decimals:								
United States money.....	4	6	8	8	8	8	7	7
Decimals.....				1	2	8	Mastery	
Measurements.....	3	6	8	8	8	8	7	7
Graphs and drawing to scale.....				5	7	8	7	7
Percentage.....						4	7	7
Problem-solving.....	3	6	8	8	8	8	7	7
Readiness and remedial work.....	4	6	8	8	8	8	7	7
Testing program.....		2	8	8	8	8	7	7

* The books examined for Grades I and II were workbooks.

the historical development and the modern viewpoints relative to the grade placement of arithmetic: (1) the elimination of many useless and obsolete topics; (2) the postponement of a number of topics to a later level; (3) the addition of topics related to our social and economic development; (4) the stretching-out of various processes and topics by introducing them earlier and extending them over a longer period of years; (5) the placing of greater emphasis on the informational, the sociological, and the psychological functions of arithmetic; and (6) an increasing use of the scientific approach to the problem of content allocation.

THE GRADE PLACEMENT OF COMPUTATIONAL TOPICS BY AUTHORS

In Table 1 are summarized the topics and processes investigated and their frequencies of grade placement as found in the analysis of the eight series of textbooks examined. The frequency of grade placement refers to the number of workbooks and textbooks assigning a given topic or process to a given grade level. A topic was considered assigned to a grade when it was presented and taught, partially or completely, in that grade. No attempt, however, was made to determine in which particular grade or grades the various topics and processes received the heaviest weighting or the most intensive treatment.

In Table 2 an attempt has been made to place each computational topic or any phase of the topic under one or the other of two headings: "Common Agreement" and "Wide Variation." When more than half of the textbooks examined assigned the same grade placement to a topic or any phase of the topic, the topic was classified under "Common Agreement." When the grade placement of a topic or a phase of a topic was not in agreement in more than half of the textbooks examined, that was listed as a "Wide Variation." A study of the wide variations will show the extent to which some textbooks place a topic above or below the grade level agreed on by the majority of the authors.

TABLE 2
COMMON AGREEMENTS AND WIDE VARIATIONS IN PLACEMENT
OF TOPICS IN RECENT TEXTBOOKS IN ARITHMETIC

Topic	Common Agreement	Wide Variation
Grade I*		
Number system:		
Counting.....	To 100 by 1's and 10's	To 48 by 2's; to 100 by 5's
Reading numbers....	To 100	.....
Writing numbers....	To 100	To 48 by 2's
Ordinals.....	To "fifth"	To "eighth"
Addition and subtraction	Facts through 5's, with emphasis on understanding	Facts through 9's
Measurement.....	Inch, foot, pint, quart, clock, calendar, dozen	.....
Problem-solving.....	Simple problem analysis	.....
Grade II*		
Number system:		
General.....	Meaning of numbers	.....
Counting.....	By 2's, 3's, 5's, 10's	.....
Reading numbers....	To 100; number words	Larger numbers
Writing numbers....	To 100	Larger numbers
Ordinals.....	To "fifth"	To "seventh" and "tenth"
Roman numerals....	.....	To X and XII
Signs.....	.....	+, -, =
Addition and subtraction	Addition facts to sum of 18 Subtraction facts to minuend of 18, emphasis on understanding and relationship Column addition with three addends	Addition and subtraction in higher decade
Measurement.....	Length: inch, foot. Liquid: pint, quart. Time: hours, day	Yard, cup, gallon, half-hour, month, year, calendar
Problem-solving.....	Simple problem analysis, one-step problems	.....
Grade III†		
Addition and subtraction	100 addition and subtraction facts One- to three-place column addition Subtraction of three-place numbers Carrying and borrowing	Addition to five two-digit numbers Subtraction of four-place numbers Zero difficulties

* Tabulations of the common agreements and wide variations in the placement of common fractions, number experiences, vocabulary, and concept development were completed but have been omitted from this table.

† Tabulations of the common agreements and wide variations in the placement of the number system, decimals, measurements, graphs, drawing to scale, and tests were completed but have been omitted from this table.

TABLE 2—Continued

TOPIC	COMMON AGREEMENT	WIDE VARIATION
Grade III—Continued		
Multiplication.....	Multiplication facts through 5's Two-place multiplicand with carrying	Multiplication facts through 3's Three-place multiplicand Zero difficulties
Division.....	Division facts through 5's Even division Three-place dividend Meanings	Division facts through 3's and 4's Uneven division Long-division form used in three books
Fractions.....	$\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ of units and groups	$\frac{1}{5}$ of units and groups
Problem-solving.....	Simple one-step problems; selecting processes; problems related to life-activities of child	.....
Grade IV†		
Subtraction.....	Mastery of subtraction facts Subtraction of five-place numbers	Subtraction of six-place numbers Terms
Multiplication.....	100 multiplication facts Three-place multiplier with carrying	Two-place multiplier Zeros in multiplier Multiplication by 10 and 100 Terms
Division.....	Ninety division facts One-figure divisor Uneven divisions Long division Meanings	Two-figure divisors Zeros in quotient Short division introduced Terms
Fractions.....	$\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$ of units and groups	$\frac{1}{5}$, $\frac{1}{7}$, $\frac{1}{9}$, $\frac{1}{10}$ Mixed numbers (1 book) Addition and subtraction of like fractions (4 books) Reduction Terms
Problem-solving.....	Analysis of problems Selecting processes Two-step problems	Multiplication and division (1 book) One-step problems (1 book)
Grade V†		
Multiplication.....	Mastery of multiplication facts Three-place multipliers and four-place multiplicands Zero difficulties	Terms Two-place multipliers (1 book) Checking

† Tabulations of the common agreements and wide variations in the placement of the number system, addition, subtraction, measurements, and tests were completed but have been omitted from this table.

TABLE 2--*Continued*

Topic	Common Agreement	Wide Variation
<i>Grade V--Continued</i>		
Division.....	Mastery of division facts Three-figure divisors Long division	Two-figure divisors Short division 18ths, 20ths, 24ths, 32ds
Fractions.....	Meanings Terms "Halves" to "sixteenths" Addition and subtraction of all types Multiplication of integers and fractions (5 books) Reduction	Multiplication of all types (1 book) Division of integers and frac- tions (1 book)
Decimals.....		Reading, writing, addition, subtraction, multiplica- tion, and division by in- tegers introduced by 2 books
Problem-solving.....	Analysis of problems Selecting processes Estimating answers Two-step problems	Emphasis on reading Verbal problems Three-step problems
<i>Grade VI†</i>		
Fractions.....	Meanings Reduction Addition, subtraction, multi- plication, division Relation between fractions and decimals	
Decimals.....	Meanings and uses Writing to millionths Addition, subtraction, multi- plication, division	
Graphs and drawing to scale.....	Uses Reading and constructing line and bar graphs Drawing to scale	Picture graphs
Percentage.....		Uses, meanings, relation to fractions and decimals in- troduced by 4 books Cases I and II Interest, discount, commis- sion introduced by 4 books
Problem-solving.....	Mastery of processes Multiple-step problems Verbal problems Constructing and solving	

It was found that the following general grade placement of computational topics is practiced:

Grades I-VI: Counting, reading and writing numbers	Grades V-VIII: Multiplication and division of fractions
Grades I-II: Ordinals	Grades I-VIII: United States money
Grades II-VI: Roman numerals	Grades VI-VIII: Decimals
Grades I-III: Easy addition and subtraction	Grades I-VIII: Measurements
Grades II-VIII: Complete addition and subtraction	Grades IV-VIII: Graphs and drawing to scale
Grade III: Easy multiplication and division	Grades VI-VIII: Percentage
Grades IV-VIII: Complete multiplication and division	Grades I-VIII: Problem-solving
Grades I-VIII: Meanings of fractions	Grades I-VIII: Readiness and remedial program
Grades IV-VIII: Addition and subtraction of fractions	Grades III-VIII: Complete testing program

A number of significant tendencies will be observed from the data presented in Table 1. The meanings of fractions, measurements, United States money, and problem-solving have been introduced in the primary grades and continued through later grades. This placement has spread these topics over a longer period of years and indicates the teaching of concept development before computation. The more difficult processes of fractions and decimals have been postponed to Grades V and VI. Definite emphasis on arithmetic readiness, testing programs, and remedial exercises was found in all textbooks.

The data in Table 2 indicate that authors are in common agreement in assigning addition and subtraction facts to Grades I, II, and III and the multiplication and division facts to Grades III and IV. There is agreement on placing the easier basic combinations in one grade and the more difficult ones in the following grade, with a definite trend toward keeping related topics within a grade.

Although there is common agreement in the placement of the meanings of common fractions in the earlier grades, wide variations are evident in the assignment of the processes involving fractions; four authors place the addition and subtraction of like fractions in Grade IV, though there is common agreement in assigning addition and subtraction of all types to Grade V. There is likewise disagree-

ment in assigning the multiplication and division of fractions. Two textbooks introduce a complete treatment of decimals in Grade V, while six postpone the topic to Grade VI.

Wide variations are observed in the placement of percentage, four authors introducing it in Grade VI and the others presenting it in Grades VII and VIII. Four textbooks introduce interest, discount, and commission in Grade VI.

The analysis of the textbooks for Grades VII and VIII revealed considerable agreement in the placement of the more difficult graphs; budgets; accounts; commercial forms; buying and selling; investments; insurance; banking services; reading electric, gas, and water meters; and other practical topics. The authors were agreed in presenting in Grades VII and VIII an introduction to algebra and geometry by treatment of formulas, equations, mensuration of geometric figures, and simple geometric constructions.

COMPARISON OF GRADE PLACEMENT BY AUTHORS WITH THE COMMITTEE OF SEVEN FINDINGS

Earlier in this report reference was made to the investigations of the Committee of Seven (8, 9), in which minimum and optimum mental-age levels were established for determining the curriculum placement of arithmetic topics and processes. The extensive and continued research of the committee has definitely pointed a way toward a more scientific grade placement of curricular materials. Pertinent to this report will be a brief comparison of the grade-placement practices of authors and the committee's recommendations.

If the writer has correctly interpreted the committee's recommended grade levels, there is common agreement in the placement of easy addition, easy subtraction, complete addition, complete subtraction, addition and subtraction of fractions, and percentage. There are variations, however, in the assignment of all other topics and processes. Textbooks place easy multiplication and easy division in Grade III, while the committee recommends Grade V for easy multiplication and Grade VI for easy division. There are corresponding variations in the placement of complete multiplication and complete division. Meanings of fractions are introduced in Grade I by some textbook authors, while Grades III and V are recommended as minimum and optimum levels by the committee. Wide variations

are noted in the placement of multiplication and division of fractions, textbooks assigning those processes to Grades V and VI and the committee establishing Grades VII and VIII as the minimum and optimum levels for multiplication and Grades VI and IX for division. Decimals are placed in Grades IV-VIII by textbooks, while Grade V is recommended as the minimum and Grades VI-VIII as the optimum level by the Committee of Seven.

The only conclusion to be reached from this study is that more research must be done to determine with certainty the stage of the child's development at which each mathematical process may be introduced and the stage when mastery of that process should be attained.

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1. BUCKINGHAM, B. R. "Trends and Policies in Arithmetic Curricula," *Mathematics Teacher*, XXXI (November, 1938), 330-35.
2. BUCKINGHAM, B. R., and MACLATCHY, JOSEPHINE. "The Number Abilities of Children when They Enter Grade One," *Report of the Society's Committee on Arithmetic*, pp. 472-524. Twenty-ninth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1930.
3. HINMAN, HARRIETT L. "An Analysis of the Results of the Number Work Survey for Kindergarten and Grade One." Toledo, Ohio: H. L. Hinman (% Board of Education), 1938 (unpublished).
4. METTER, HARRY L. "Trends in the Emphasis on Various Topics of Arithmetic since 1860," *Elementary School Journal*, XXXIV (June, 1934), 767-75.
5. MORTON, ROBERT LEE. *Teaching Arithmetic in the Elementary School*: Vol. I, Primary Grades. New York: Silver Burdett Co., 1937.
6. *Report of the Society's Committee on Arithmetic*. Twenty-ninth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1930.
7. *Research in Constructing the Elementary School Curriculum*, p. 41. Third Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1925.
8. WASHBURN, CARLETON. "Mental Age and the Arithmetic Curriculum: A Summary of the Committee of Seven Grade Placement Investigations to Date," *Journal of Educational Research*, XXIII (March, 1931), 210-31.
9. WASHBURN, CARLETON. "The Values, Limitations, and Applications of the Findings of the Committee of Seven," *Journal of Educational Research* XXIX (May, 1936), 694-707.
10. WILSON, GUY M., STONE, MILDRED B., and DALRYMPLE, CHARLES O. *Teaching the New Arithmetic*. New York: McGraw-Hill Book Co., Inc., 1939.

SELECTED REFERENCES ON ELEMENTARY-SCHOOL INSTRUCTION

I. CURRICULUM, METHODS OF TEACHING AND STUDY AND SUPERVISION

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IN THIS bibliography are included selected publications in the field of the elementary-school curriculum, methods of teaching and study, and supervision which appeared during the period from April 1, 1940, to March 31, 1941. Foreign-language titles are not included, and popular articles on the topics are not cited unless they present facts not generally known or an original and challenging point of view. The materials on curriculum and method deal with general aspects of these topics; studies dealing with specific subjects will be listed in subsequent issues.

CURRICULUM¹

431. BALDWIN, J. W. "The Dilemma of Social Studies Curriculum Committees," *Social Education*, IV (April, 1940), 242-46.
Discusses controversial issues underlying attempts to develop an integrated program in the social studies.
432. BOBBITT, FRANKLIN. *The Curriculum of Modern Education*. New York: McGraw-Hill Book Co., Inc., 1941. Pp. xii+420.
Presents a highly important formulation of the author's point of view regarding the scope, the function, and the organization of the curriculum.
433. BRUECKNER, LEO J. "Family Life and the Curriculum," *Curriculum Journal*, XII (February, 1941), 58-61.
Discusses specific ways in which the curriculum of the schools can improve the conditions of family life.

¹ See also Item 577 (Michener and Long) in the list of selected references appearing in the October, 1940, number of the *Elementary School Journal* and Items 21 (Lawson) and 27 (Morrison) in the January, 1941, number of the *School Review*.

434. BRUMBAUGH, FLORENCE. "The Place of Humor in the Curriculum," *Journal of Experimental Education*, VIII (June, 1940), 403-9.
Reports the results of an objective study of situations that produce laughter in children of Grades III-VI and discusses implications for curriculum-making.
435. *Education for Family Life*. Nineteenth Yearbook of the American Association of School Administrators. Washington: American Association of School Administrators, 1941. Pp. 368.
Discusses the obligations of education to the homes of America and the contributions the school can make to the strengthening of family life as a means of building national unity and morale.
436. *Family Living and Our Schools*. The Joint Committee on Curriculum Aspects of Education for Home and Family Living of the Home Economics Department of the National Education Association and the Society for Curriculum Study, Bess Goodykoontz and Beulah I. Coon, co-chairmen. New York: D. Appleton-Century Co., Inc., 1941. Pp. xiv+418.
Contains a discussion of the ways in which the educational program at all levels can contribute to the improvement of home and family living. Chapter ii contains a list of major themes that should underlie this program.
437. GOGGANS, SADIE. *Units of Work and Centers of Interest in the Organization of the Elementary School Curriculum*. Teachers College Contributions to Education, No. 803. New York: Teachers College, Columbia University, 1940. Pp. vi+140.
Reports an investigation of the values of units of work as a basis of instruction.
438. LEONARD, J. PAUL. "Current Conflicts in the Curriculum," *Curriculum Journal*, XI (November, 1940), 298-302.
Discusses three major criticisms of the curriculum and four major issues faced by persons at work on courses of study.
439. PALM, REUBEN R. "The Role of the Laboratory School in Curriculum Development," *Curriculum Journal*, XI (December, 1940), 350-53.
Reports the results of an investigation of the contributions to curriculum development of laboratory schools maintained by teachers' colleges.
440. SCHOENCHEN, GUSTAV G. *The Activity School*. New York: Longmans, Green & Co., 1940. Pp. x+360.
Contains both a discussion of the historical development of principles underlying learning through experience and illustrations of practices in applying them.
441. VAN BRUNT, TOM BYRD. "Survey of State Curriculum Programs," *Curriculum Journal*, XI (May, 1940), 227-29.
Contains a brief survey of current programs of curriculum-making under way in various states.

442. VAN BRUNT, TOM BYRD, and NUTTER, H. E. "Florida's Long-Range Curriculum Program," *Curriculum Journal*, XII (February, 1941), 62-65.
Describes the activities that are under way in Florida dealing with the development of the curriculum and emphasizing teacher participation in the program.

METHODS OF TEACHING AND STUDY¹

443. ANFINSON, RUDOLPH D. "School Progress and Pupil Adjustment," *Elementary School Journal*, XLI (March, 1941), 507-14.
Presents data questioning the validity of the present tendency to reduce or eliminate nonpromotion in our schools as far as the effects on social and emotional adjustment are concerned.
444. CARROLL, HERBERT A. "Intellectually Gifted Children: Their Characteristics and Problems," *Teachers College Record*, XLII (December, 1940), 212-27.
Analyzes research on intellectually gifted children and presents the basic principles of an educational program adapted to their needs.
445. COOK, WALTER W. "Some Effects of the Maintenance of High Standards of Promotion," *Elementary School Journal*, XLI (February, 1941), 430-37.
Compares the mean intelligence level, the achievement average, and the range of specific abilities of pupils in schools with high and low promotion rates.
446. CRIDER, BLAKE. "Children Who Cannot Write," *Educational Administration and Supervision*, XXVI (May, 1940), 363-71.
Gives a careful analysis of factors contributing to failure to learn to write legibly.
447. DONNER, ARVIN N. "A Survey of Students' Concepts Concerning Lost and Found Property," *Journal of Educational Research*, XXXIV (December, 1940), 288-99.
Reports results of a test of the knowledge possessed by pupils, aged ten to twenty years, of statutory provisions concerning lost and found property.
448. GABEL, OTTO J. "The Effect of Definite versus Indefinite Quantitative Terms upon the Comprehension and Retention of Social Studies Material," *Journal of Experimental Education*, IX (December, 1940), 177-86.
Reports that the "definite" method of presenting quantitative terms in the social studies is more effective than the "indefinite" method of presentation.

¹ See also Items 500 (Durrell) and 515 (Kirk) in the list of selected references appearing in the October, 1940, number of the *Elementary School Journal*; Item 610 (Dickey) in the November, 1940, number; Items 211 (Lamson), 212 (*Meeting Special Needs of the Individual Child*), 214 (Olson and Davis), and 217 (Roslow) in the April, 1941, number of the *Elementary School Journal*; and Item 387 (Heck) in the May, 1941, number and Item 476 (*Mental Health in the Classroom*) in the September, 1941, number of the *School Review*.

449. GATES, ARTHUR I. "A Further Evaluation of Reading-Readiness Tests," *Elementary School Journal*, XL (April, 1940), 577-91.
An important contribution containing a report of the basic data underlying the validation of a series of reading-readiness tests.
450. HAMALAINEN, ARTHUR E. "Evaluating Growth of Individual Children," *Elementary School Journal*, XLI (January, 1941), 359-67.
Reports the results of a study of methods of marking used in elementary schools of New York State and gives suggestions for improvement.
451. LANE, ROBERT HILL. *The Teacher in the Modern Elementary School*. Boston: Houghton Mifflin Co., 1941. Pp. viii+398.
Contains a "charter for the elementary school" and discusses instructional procedures to achieve the purposes stated in the charter.
452. MCKOWN, HARRY C., and ROBERTS, ALVIN B. *Audio-visual Aids to Instruction*. New York: McGraw-Hill Book Co., Inc., 1940. Pp. xiv+386.
Contains many concrete illustrations of visual and auditory aids to instruction and discusses sources of materials and equipment.
453. *Mental Hygiene and Health Education*. Review of Educational Research, Vol. X, No. 5. Washington: American Educational Research Association, 1940. Pp. 403-528.
Reviews the literature in these fields for the period ending July, 1940, which deals with the problem of reducing deviations from the normal.
454. PISTOR, FREDERICK. "How Time Concepts Are Acquired by Children," *Educational Method*, XX (November, 1940), 107-12.
Discusses the results of experimental studies of the relation between maturation and the acquisition of time concepts by children.
455. PRITCHARD, MIRIAM C. "The Psychology and Education of Subnormal Children," *Teachers College Record*, XLII (December, 1940), 228-38.
Presents the results of scientific studies dealing with children of a low intellectual level and comments fully on the basic essentials of an educational program adapted to their needs.
456. *Psychological Tests and Their Uses*. Review of Educational Research, Vol. XI, No. 1. Washington: American Educational Research Association, 1941. Pp. 132.
Reviews the literature in this field for the period January, 1938, to July, 1940. Valuable for supervisors and other persons interested in evaluation of the educational product.
457. PULLIAM, ROSCOE. "Promoting the Mental Health and Social Adjustment of Pupils," *Elementary School Journal*, XLI (September, 1940), 28-37.
Discusses the problem of adapting instructional procedures to differences among children in characteristics affecting mental health and social adjustment.

458. *Radio and the Classroom*. Report of the Radio Committee of the Department of Elementary School Principals of the National Education Association. Washington: Department of Elementary School Principals of the National Education Association, 1940. Pp. 98.
Contains a series of helpful articles on the place of radio in instruction at the elementary-school level.
459. *Readiness for Learning*. Compiled by Gertrude Hildreth. Bulletin of the Association for Childhood Education. Washington: Association for Childhood Education, 1941. Pp. 36.
Contains a series of articles discussing readiness for reading, arithmetic, language, music skills, and writing.
460. RUSSELL, DAVID H. "Trends and Needs in the Study of Special Abilities and Disabilities," *Teachers College Record*, XLII (December, 1940), 239-49.
Discusses recent developments in the field of educational diagnosis and indicates a series of problems that should be investigated.
461. WITMER, HELEN LELAND. *Psychiatric Clinics for Children*. New York: Commonwealth Fund, 1940. Pp. xx+438.
Describes the philosophy, practices, objectives, and achievements of clinical child psychiatry in the schools of the United States, with special reference to state programs.
462. WITTY, PAUL. "Some Considerations in the Education of Gifted Children," *Educational Administration and Supervision*, XXVI (October, 1940), 512-21.
Points out that general intelligence alone is no measure of giftedness and that gifted children may be found at all levels of mental ability—an important fact to be borne in mind when grouping children.

SUPERVISION¹

463. BARR, A. S. "The Wisconsin Study of Teaching Ability," *Journal of Educational Research*, XXXIII (May, 1940), 671-84.
A preliminary report on a study of teaching efficiency made at the University of Wisconsin.
464. BRUNNER, EDMUND DE S. "How To Study a Community," *Teachers College Record*, XLII (March, 1941), 483-92.
Describes a procedure for making a community survey and comments on the values of such a study.

¹ See also Item 603 (Bond) in the list of selected references appearing in the November, 1940, number of the *Elementary School Journal*; Items 40 (Reavis) and 37 (Lange) in the January, 1941, number; Items 55 (Bosley) and 65 (*Teacher Personnel*) in the February, 1941, number; Items 181 (Tyler) and 215 (Orata) in the April, 1941, number of the *Elementary School Journal*; and Item 412 (Jackson) in the June, 1941, number and Item 481 (Buros) in the September, 1941, number of the *School Review*.

465. BUCKINGHAM, B. R. "The Textbook in Use," *Harvard Educational Review*, XI (March, 1941), 191-201.

Discusses controversial issues in the field of textbook selection and points out the need for research on how to improve the textbook as a tool of learning and instruction.

466. CARLEY, VERNA A. "Teacher Education in the Study of a Region," *Educational Method*, XX (February, 1941), 226-35.

Discusses the use of the "traveling seminar" and of community excursions as means of helping teachers to understand and utilize community resources.

467. DAVIS, ROBERT A., with the assistance of A. M. VANCE and HAZEL TAYLOR. "The Teaching Problems of 1,075 Public School Teachers," *Journal of Experimental Education*, IX (September, 1940), 41-60.

Contains a comparative analysis of teaching problems reported by a large number of teachers in elementary schools and in junior and senior high schools.

468. FALK, PHILIP H. "A Program of Evaluation for Improving Instructional Services for a School Year," *Elementary School Journal*, XLI (November, 1940), 175-84.

Presents a series of suggestions for evaluating various phases of the work of the school, including both administrative and instructional aspects.

469. FAULKNER, RAY. "Educational Research and Effective Art Teaching," *Journal of Experimental Education*, IX (September, 1940), 9-22.

Presents a summary of research bearing on a number of questions concerning the teaching of art.

470. FOREMAN, ANNA B. "A Report Card for Evaluating the Progress of the Whole Child," *Elementary School Journal*, XLI (November, 1940), 195-205.

Contains a detailed analysis of concrete acts of behavior that can be used to describe the reactions of elementary-school pupils as a basis for measuring their progress.

471. FREEMAN, FRANK N. "Co-operative Research with Adequate Support," *Journal of Educational Research*, XXXIV (January, 1941), 321-26.

"Suggests a plan of co-operative research among individuals of like interests, adequately financed."

472. GRAY, HOB, and VOTAW, DAVID F., JR. *Classroom Instruction*. University of Texas Publication No. 4042. Austin, Texas: University of Texas, 1940. Pp. 138.

Reports the results of a survey of classroom instruction in 217 school systems of Texas and contains a guide to the experimental study of teaching procedures.

473. HEATON, KENNETH L. "Summer Workshops for Teachers," *Curriculum Journal*, XI (April, 1940), 152-56.
Presents an analysis of the values and outcomes of the workshop as a device in training teachers in service.
474. HEATON, KENNETH L. "Program of the Committee on Workshops," *Educational Method*, XX (March, 1941), 292-96.
Reports the development and present status of workshops as a teacher-training procedure, as well as trends in practices of workshops.
475. HERRICK, JOHN H. "Outcomes of Systematic Evaluation," *Elementary School Journal*, XLI (December, 1940), 257-68.
Deals with favorable and unfavorable effects of systematic appraisal of educational programs and discusses steps to be taken to improve the use of evaluation techniques.
476. JERSILD, ARTHUR T. "Characteristics of Teachers Who Are 'Liked Best' and 'Disliked Most,'" *Journal of Experimental Education*, IX (December, 1940), 139-51.
Compares categories used by children and adults in describing the characteristics of teachers "liked" and "disliked."
477. KRAUSE, L. W. "A Method of Noting and Evaluating Modern and Progressive Practices in a Classroom," *Elementary School Journal*, XLI (March, 1941), 521-32.
Presents a carefully developed survey sheet consisting of a series of items to guide the observer in analyzing teaching.
478. LANGE, PAUL W. "The Present Status of Textbook Legislation," *Elementary School Journal*, XLI (January, 1941), 368-80.
Contains an analysis of laws affecting state, county, and district uniformity in the adoption of textbooks.
479. LARSON, EMIL L. "Migration and Its Effect on Schools," *Elementary School Journal*, XLI (December, 1940), 283-97.
Presents data showing the extent of migration in the schools of Arizona and discusses the educational implications.
480. MATHEWS, L. H. "An Item Analysis of Measures of Teaching Ability," *Journal of Educational Research*, XXXIII (April, 1940), 576-80.
Shows the very low discriminating value, when validated with measures of pupil growth, of most of the 1,675 items included in eleven purported measures of teaching ability.
481. NEELEY, DETA P. "Major Problems Confronting Rural Teachers," *Educational Method*, XX (January, 1941), 200-204.
Reports instructional problems encountered by selected rural teachers during the time they were observed by their supervisors.

482. *The 1941 Survey of the Maryland Public Schools and Teachers Colleges.* Made by the Maryland State School Survey Commission to Governor Herbert R. O'Connor. Baltimore: Maryland State School Survey Commission (1114 Lexington Building), 1941. Pp. 424.
Contains an analysis of practices in Maryland relating to curriculum and instruction, supervision, administration, and the teachers' colleges. Includes specific and detailed recommendations in each area.
483. SCATES, DOUGLAS E. "Assumptions Underlying Research Data," *Journal of Educational Research*, XXXIV (December, 1940), 241-54.
A critical statement concerning assumptions underlying the formulation of a problem for study, the admission of cases to the study, and the methods of quantification.
484. SHANNON, J. R. "Elements of Excellence in Teaching," *Educational Administration and Supervision*, XXVII (March, 1941), 168-76.
Compares estimates, as made by supervisors, of characteristics of a large number of excellent and poor teachers.
485. WHITELAW, JOHN B. "School-Community Co-operation and the Teacher," *Curriculum Journal*, XI (May, 1940), 201-4.
Gives an analysis of the kinds of information that should be gathered to form the basis of an intelligent co-operative attack by school and community on local educational matters.
486. WHITELAW, JOHN B. "Criteria for Evaluating the Effectiveness of Supervision," *Educational Administration and Supervision*, XXVII (January, 1941), 29-38.
Lists a series of items and questions under each criterion to be used in appraising the work of supervisors.

Educational Writings



REVIEWS AND BOOK NOTES

PROGRESSIVE EDUCATION CHANGES ITS METHODOLOGY.—No longer do the leaders of the Progressive Education Association speak and write of the child-centered school. Nine years ago George S. Counts stated vigorously in his pamphlet, *Dare the School Build a New Social Order?* (John Day Pamphlets, No. 11. New York: John Day Co., 1932), that "Progressive education cannot place its trust in a child-centered school" (p. 10). Fast-moving events have forced the association to attempt to state its fundamental philosophy. For the first time we have an official philosophy of the movement. The May, 1941, issue of *Progressive Education* contains a special committee report entitled "Progressive Education: Its Philosophy and Challenge" (pp. 3-28). In no uncertain terms we read: "The committee . . . rejects the doctrine that the direction in which education should go, and the ends it should seek, are discernible in the child out of relation to the culture" (p. 5). Unequivocally the committee proposes that school programs should be "designed to develop in young people and in adults an intelligent appreciation of the democratic way of life and to foster attitudes and flexible habits essential to its practice" (p. 23). Here is the full-fledged society-centered school. Since our democratic society itself is primarily concerned with "the rich development of individual personality" (p. 27), the new school is, at one and the same time, concerned with our great society and with each personality within its gates.

In the light of this official statement of the philosophy of progressive education, it is interesting to examine a new book on method¹ which is the latest in a series of eight books on progressive teaching by its author. The extent to which the methodology is changing may be indicated by the fact that one-third of this book is devoted to the old-fashioned three R's, renamed "Technical Experiences." Moreover, a careful analysis of the book shows that purely incidental teaching of arithmetic, reading, and language skills is rejected as inadequate. Melvin points out that schools which have attempted to teach the number processes incidentally, without drill, "have always failed to meet the needs of all the children" (p. 62). He suggests three practical ways of arranging satisfactory drill: (1) by the use of a textbook; (2) by the provision of number games, practice pads, and workbooks; and (3) by the use of individualized drill materials, such as are used in Winnetka (pp. 63-66). The author regards the third plan as "probably the best which has ever been devised" (p. 66).

¹ A. Gordon Melvin, *Method for New Schools*. New York: John Day Co., 1941. Pp. x+302. \$2.95.

Although the author does not approve of specialized formal drill materials in beginning reading, he points out that experience charts in the children's own words, as taken down by the teacher, and stories written for the children by the teacher embodying their common experiences will provide adequate drill for normal children in the early stages of learning to read. In the second stage, referred to as the "period of rapid progress," dozens of little books of first-grade reading difficulty must be available for individualized practice in using the "new power to read" (pp. 95-96).

The author advocates the adoption of manuscript writing, mainly because it will reduce the time needed for formal lessons in handwriting; but he retains one formal lesson a week in handwriting with attention centered on analysis and criticism, followed by directed practice. In addition, he suggests that "special group practice may be provided for children who are falling behind a natural standard for their age" (p. 110).

In the case of spelling, Melvin states the position that "the true spelling lessons are those which are incidental to reading and writing" (p. 116); but the bulk of the chapter on spelling is devoted to a discussion of drill. Again he commends the Winnetka plan as being "as satisfactory a scheme as any yet proposed" (p. 117). This is a plan for individualized drill on a carefully selected list of some three thousand words.

Space does not permit an analysis of the third of the book devoted to "Artistic Experiences." Music is described as "the most neglected area of modern education" (p. 140). The author points out that "one of the difficult things for teachers is to keep hands off in children's art work" (p. 185).

The remaining third of the book is used in presenting "A Whole View of Method," with personality as "the organizing core of experience," and the other two types of experiences, "Scientific Experiences" and "Social Experiences."

The theme which runs throughout the book is well stated in the title of the concluding chapter, "One Child, One Learning." The author repeatedly points out that "the fundamental premise of all method [is] that learning is one" (p. 290) and that "the unity of learning is the unity of the personality" (p. 5).

In the present state of the social studies in the elementary schools, the author finds that "the content of the social studies is poorly understood and poorly recognized," with the result that he finds it "impossible to set forth levels of growth or areas of study" (p. 288). In the opinion of the reviewer, this failure to deal more adequately with the social studies is well-nigh a fatal weakness. When the school is actually becoming society-centered, it is unfortunate that the author seems to know nothing of the rich new materials that are being provided through the enterprise of publishers, who have found many competent authors. Unfortunate, too, is his lack of acquaintance with the fine work in the social studies in many public-school systems. In fairness it must be admitted that Melvin stresses the importance of democratic living in the school, the value of discovering the community, and the usefulness of the concept of regionalism. It remains for someone else to implement the society-centered elementary

school. The Educational Policies Commission has done this job effectively for secondary schools in *Learning the Ways of Democracy: A Case Book of Civic Education*. The latest volume prepared by the Commission, entitled *The Education of Free Men in American Democracy*, provides the charter for the social studies. The elementary school must play a large part in the new program of educating free men. It is ready and willing; in fact, it is already functioning effectively in many centers of progressive public education.

The author draws heavily on the writings of Carleton Washburne and other authorities on progressive education. Footnotes adequately indicate his sources, and a brief bibliography of fourteen titles will enable the reader to carry on further reading in the field.

The reviewer recommends this book in spite of its serious inadequacy in treating "Social Experiences." The author has maintained his leadership in the methodology of progressive education by this latest addition to his books in the field. Its greatest value may prove to be the clear recognition that incidental learning of the three R's is not enough. The reviewer believes that incidental learning is just as inadequate in the other three fields as in the "Technical Experiences" of reading, 'riting, and 'rithmetic.

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EDUCATION AND SCIENTIFIC THINKING.—The myth of Prometheus, who stole fire from the gods and took it to men, constitutes the background for the title of the thirteenth volume in the lecture series of Kappa Delta Pi,¹ honor society in education. The ability to think, to think scientifically, is the enterprise outlined in this publication as the work of the contemporary Prometheus, and upon the accomplishment of this task depends, in large measure, the advance of democracy, both political and industrial.

In expanding and supporting this thesis, the author, a well-known professor of education at Teachers College, Columbia University, defines what he means by scientific thinking, explains its function in a democratic society, discusses the technique of instruction in this important area, and considers some of the more common difficulties to be encountered in the furtherance of the program.

The complacency of those responsible for public-school instruction should be shaken considerably by certain statements in this book. For example, after a discussion of general intelligence and certain weaknesses in the teaching of mathematics, Professor Bryson comments significantly: "It would seem only prudent and intelligent on our own part to make an honest trial of teaching all children to think straight before we blame failure to do so on native incapacity" (p. 42). Again, in regard to children whose keen imagination might be supposed by some to be a handicap to clear thinking, the author concludes: "For one child who is

¹ Lyman Bryson, *The New Prometheus*. The Kappa Delta Pi Lecture Series. New York: Macmillan Co., 1941. Pp. x+108. \$1.00.

really so responsive to the stimuli of his senses and so vibrant in his nerves that he must feel only and respond only with feeling, I believe that there are hundreds who are led into a mush-fibered helplessness by bad teaching" (p. 43).

Bryson's leadership in the field of adult education has given him the requisite background to include in this volume a consideration of the improvement of scientific thinking among adults. He points out that, of eighty million voters in this country, fewer than eleven million have been graduated from secondary schools and fewer than three million attended college. The average education of the population of the United States is a seventh-grade education. The author insists that, if adults of today are to understand history, are to deal intelligently with social, industrial, and governmental problems, are not to be misled by propaganda, and are to protect themselves against despotism in its many forms, they need much greater facility in the art of thinking than they now possess.

Professor Bryson is convinced that effective thinking is frequently balked by a lack of knowledge. He believes that this lack can be met, first, by teaching people to read and, second, by making books available to all: "We need to teach our people to be readers of books. . . . we need to get men to think of reading as an expression of their own needs and purposes. We need a functional idea of reading so that men will turn naturally to books as tools for their own purposes" (p. 90).

It is quite possible that readers of these lectures will feel that the author has excessively emphasized certain points. His preference for books as the basis of adult education rather than newspapers, magazines, and the radio is an illustration of this emphasis. Some readers may feel, too, that many of the progressive schools are more successful in teaching pupils to think than Professor Bryson would seem to acknowledge. Certainly, however, no one can object to the high value that he places on the art of scientific thinking. The clarion call for more emphasis on this essential in education should strike a responsive chord.

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MEETING THE PROBLEMS OF NONPROMOTION.—From the time of the publication of the book entitled *Laggards in Our Schools* by Leonard P. Ayres in 1909, teachers and administrators in both the elementary- and the secondary-school fields have been concerned with the problems centering in the progress of pupils in their school work. In recent years numerous studies have dealt with the various aspects of promotion and nonpromotion, each concerned more or less with specific situations. In a Teachers College publication¹ Saunders has attempted, with commendable success, to evaluate briefly some of the research studies dealing with promotion at the elementary-school level.

¹ Carleton M. Saunders, *Promotion or Failure for the Elementary School Pupil?* New York: Teachers College, Columbia University, 1941. Pp. viii+78. \$1.25.

In a readable book of less than a hundred pages, divided into six chapters, the causes of nonpromotion have been analyzed from the reports of state and city school systems, from school surveys, from questionnaire studies involving large and small school systems, and from the personal opinions of school administrators in various sections of the United States. From the analysis of the studies of promotional practices in various school systems, the author comes to the conclusion that, while the most common cause of pupil failure and nonpromotion was that "children fell short in subject-matter achievement" (p. 22), there were other underlying causes and values or purposes of nonpromotion. Further analysis of the causes or reasons ascribed for nonpromotion in the investigations reported resulted in a grouping under seven headings: "insufficient achievement, inadequate mentality, insufficient attendance, imperfect health, out-of-school causes, lack of emotional stability, inappropriate administrative practices" (p. 23). Means of correcting these negative factors are suggested in a check list of "Suggested Personnel and Methods for a 100 Per Cent Promotional Policy or Practice" (pp. 57-65).

In the discussion of 100 per cent promotion the author states that "it is evident that many school superintendents believe in a 100 per cent promotional policy but few practice it" (p. 55).

After dealing with the causes of nonpromotion as these have been presented in the light of educational research, mental hygiene, the philosophy of education, and lay literature, the author comes to the conclusion that "nonpromotion has no place in a school in which children are properly motivated and work to the limit of their individual capacities. Children who do not work to such a degree show signs of maladjustment which should become a challenge to the school, to the home, and to the community" (p. 44).

It is to be noted that, while the author places on the teacher the major responsibility for promotion, there are many factors involved which are beyond the control of the teacher and the school authorities. With this fact in mind an additional chapter dealing more at length with the implementation of methods for establishing a system of 100 per cent promotion would have been well received by educational practitioners. As previously stated, the book is readable, is accurately documented, and presents several pages of a carefully selected bibliography. Classroom teachers and administrative officers will find it profitable to read this study on the causes of nonpromotion.

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AMERICAN EDUCATION IN OUTLYING AREAS.—Students of comparative education will read with interest and profit the latest contribution¹ of Charles F.

¹ Charles F. Reid, *Education in the Territories and Outlying Possessions of the United States*. Teachers College Contributions to Education, No. 825. New York: Teachers College, Columbia University, 1941. Pp. xxvi+594. \$3.85.

Reid. This study is a critical and comprehensive treatment of education in all the territories and outlying possessions of the United States. The areas included are Alaska, Hawaii, Puerto Rico, Guam, American Samoa, the Canal Zone, and the Virgin Islands. One chapter is devoted to each of these areas. In addition, there are an introduction treating "The Problems of Empire," one chapter devoted to "A Comparison of the Territories with the Forty-eight States," a final chapter entitled "A Critique and a Summary," and an excellent bibliography.

On the whole the book is very readable. Pertinent findings and recommendations are given. One hundred and thirty-nine tables are included. However, the reader will regret that the book contains no maps for the seven areas under discussion.

Providing educational facilities for dependent territories raises a large number of problems. For example, what shall be the policy of the suzerain country? The traditional practice has been to develop the educational program for the newly acquired areas without adequate regard for their own cultural background and needs. This policy, the policy of assimilation, has been found to have serious defects. Today a policy of greater adaptation to local environments is being gradually worked out. Some of the issues involved are the language of instruction, the curriculum and course of study, the character of administration and supervision, the preparation of teachers, and the financial support of the public-school system.

A few pertinent statements pointing out some of the problems of each of the seven areas may serve to characterize the situation in the schools of these areas.

In Alaska a reorganization of the territorial school system is needed, for the method of financing is unsatisfactory; the curriculums fail to meet the needs of the majority of the pupils; insufficient attention is given vocational education; there is no adequate provision for in-service training of teachers nor any legal method of salary increases; and many rural areas suffer from lack of gymnasiums and play methods.

In Hawaii important limitations militate against equality of educational opportunities, chief among which are the selective principle of admission to Grades IX and X, the system of book rental and other fees, and the maintenance of English-Standard schools for children who can speak English well.

In Puerto Rico the size and the character of the population have a pronounced bearing on public education; the agricultural character of the island's economy has made it increasingly difficult for the dense population to support itself.

In Guam education suffers from the undefined political status of the population and from the fact that the island is under naval administration.

In American Samoa, Western values and standards cannot be applied because of the hold which the indigenous culture still has over the people.

In the Canal Zone white children are afforded educational opportunities through the junior-college level, while Negro children have no opportunities beyond Grade VIII.

In the Virgin Islands straitened economic circumstances hinder educational

progress. Although conditions have improved in recent years, some of the conditions which still prevail are a concentration of agricultural land in the hands of a small proportion of the population; a small number of home-owners; congested, insanitary living conditions; and the steady departure of males from the islands in the economically productive years of their lives.

Summarizing the factors basic to the improvement of education in the territories and outlying possessions, Reid believes the following conditions are necessary:

The formulation of an educational philosophy which is related to an appropriate social philosophy; increased financial support of the public schools; the appointment of professional educators to administrative positions; an improvement in the true professional status of the teacher; a curriculum formulated in line with an appropriate educational philosophy referred to above; a body of research, based upon comprehensive surveys, which will reveal the social and educational problems of the several areas; a federal division or office competent to deal with the social and educational problems in the territories [p. 566].

The value of this study has been recognized in the report *Public Education in the Territories and Outlying Possessions* (Staff Study No. 16. Prepared for the Advisory Committee on Education. Washington: Government Printing Office, 1939), in the preparation of which Reid co-operated with Lloyd E. Blauch. The present study is a more comprehensive and more detailed contribution to our knowledge of the problems of education in the territories and outlying possessions of the United States and should for many years serve as a valuable guide to the solution of those problems.

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Educational News and Editorial Comment

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SCHOOL AND COMMUNITY RELATIONSHIPS

THE traditional concept of the place of the school in the community was that of an isolated agency with a specific, limited task. This concept grew out of the conditions of pioneer life, in which many of the educational responsibilities now assumed by the school were carried on by the community itself and in which the school's function was to train young people in the three R's.

Recently there has been much interest in developing a more effective relationship between the work of the school and the community. In the first place, the modern conception of curriculum and of learning stresses the importance of firsthand experience in the community. Second, the changes in our social organization have imposed on education the task of providing types of training which were formerly obtained by normal living in a community. Thus training for work, health education, citizenship education, and training for wise recreation are now thought to be the functions of the school, whereas formerly the home and the simple, neighborhood organization of the community cared effectively enough for these needs. With this enlarged concept of the function of education has come the realization that the task is too complex to be carried on within the four walls of the school. Hence alert educators every-

where have been looking for ways in which to use the community more effectively, as well as for means of bringing about more active participation of community leaders in the total job of educating young people. There are numerous ways in which the work of the school and the community can be brought closer together. The most familiar method is to employ community resources for the purpose of "vitalizing" the curriculum or for securing information not available in books. The use of trips and excursions is now a commonplace procedure in most schools. Recently, however, the explorations of the school's place in the community and of the school's use of the community have gone much further.

Study of the community carried on by the teachers Many schools have recognized that wise use of community resources is not possible on the basis of accidental knowledge of the community which individual teachers may have. Systematic studies of the community by the teachers have been found necessary, particularly in schools where an effort is being made to develop curriculums to meet the needs of young people and of the community. Several teacher-training institutions, such as the Ohio State University and Syracuse University, have recognized this need and have incorporated systematic community studies in their teacher-training programs. Local school systems also have occasionally made attempts to acquaint their teachers with their communities. A community study carried on by the Cincinnati public schools was described in that system's official publication, *Better Teaching*, and was commented on in the March, 1941, number of the *Elementary School Journal*.

Another effort in this direction is represented by a mimeographed pamphlet on "Community Resources" issued by the Des Moines, Iowa, public schools. The pamphlet, compiled by Lyle Flanagan, Alice Myers, and Geraldine Rendleman, contains a survey of community resources to be used in conducting school excursions. The purpose and the story of the project are set forth in the Foreword:

Trends in education have revealed a need for a better understanding by both educator and pupil of the communities in which they live. For some time teachers have used community resources, but no systematic or uniform ap-

proach toward the use of all resources has ever been made. The following material has been compiled through the co-operation of school and community people in order that there may be: (1) a more thorough survey of all community resources which have educational value; (2) a better classification to enable the community to make definite and effective contributions; (3) an opportunity for the community to work systematically and harmoniously in the educational program of Des Moines; (4) a better understanding by teachers and pupils of their particular community; (5) co-operative team work, because of a better acquaintance between school and community people, for the most effective educational program possible and for a common meeting ground in assuming the responsibilities of education.

The thinking, as expressed in the purposes of this project, has been present for some time in the minds of both community and school people. On a number of occasions, both groups have expressed a sincere desire for the creation of a definite organization through which common problems and responsibilities could be met co-operatively. School groups, as opportunities have presented themselves, have studied this matter.

In September, 1939, the presidents or appointed representatives of seventeen school groups were called together. The proposal for such an organization was presented to them with the request that in each case they present the matter to their respective groups in order that each group might decide whether or not it wished to work on such a plan. Practically all groups approved the proposal and either elected or appointed two representatives who would actually carry on the work.

This group, composed of the representatives of the co-operating school groups, then faced the task of bringing in a representative and willing community body. A list of some sixty community organizations was made to which letters of explanation and invitation were sent.

The survey of the community was made by the co-operative effort of forty-seven community and seventeen school organizations. Information was assembled regarding the resources available in the following areas: business, consumer education, government, health, industry, intercultural relations, practical and fine arts, public welfare, recreation, religion, and safety.

For each of the sources or agencies listed, information is given to show whether excursions are permitted and how many persons may be included; whether guest speakers, demonstrations, or visual aids can be obtained; and what form of pupil participation is possible.

The compilers of the pamphlet recognize that a survey of this type is useful only as a starter. Each year revisions are needed, and new material must be added if the handbook is to retain its usefulness.

They also point out that each school, in addition to using this handbook, needs to study its particular district in greater detail according to its special curriculum needs.

A handbook informing parents about the school An important phase of school-community relationship is the intelligence of the clientele about what is going on in the school. Often the education of parents is thought of as a one-way road, namely, that of acquainting the parents with the program of the school. Frequently also the exclusive motive of such education is to gain public support, financial and otherwise. The *Handbook for Parents* issued recently by the Virginia Program for Improving Instruction envisages more far-reaching results. In the Foreword, Sidney B. Hall, the state superintendent of public instruction, expresses the hope that the handbook will be instrumental in developing closer co-operation for meeting the needs of pupils and in creating the basis for more active participation of parents and laymen in the development of the program of the schools:

Among those who are concerned with meeting the educational needs of children and youth, there is increasing recognition of the importance of the contribution of the home and the community to an effective program of education. The school is only one of the educational agencies of our society and, therefore, cannot perform the whole task; the home, the community, the church, as well as the school, have their educational responsibilities. The school, with its professionally trained personnel, is the agent of the parents to help them educate their children, which, in the last analysis, is the responsibility of the parent.

In addition to this responsibility which suggests the need for close relationship of parents to the school and its program, another reason for close relationship is the contribution which parents and lay citizens can make to the school program. Parents know children, their own and others, and this knowledge, if available, can help the school meet intelligently the needs of children. . . .

In recognition of the responsibility of parents for the education of their children and in appreciation of the valuable contributions which parents and lay citizens can make to the development of a sound and effective program of education, the Virginia Program for Improving Instruction has sought from its beginning to enlist the active participation of parents and laymen in the study, discussion, and planning which that program has involved. In keeping with that desire, this bulletin has been prepared so that by studying and discussing the questions which it contains, parents and laymen may understand the purposes and practices of the Virginia Program, may make their contributions in the

light of their experience and wisdom, and may help with planning and putting into operation, in co-operation with the school people, a sound and effective program of education for the children and youth of Virginia.

The handbook is intended for the use of study groups and is devoted to answering questions "frequently raised by parents and other interested persons . . . and by teachers." The materials dealing with these questions, including brief bibliographies, were prepared by a group of parents, elementary- and secondary-school teachers and principals, supervisors, superintendents of schools, and members of the staff of the State Department of Education. Among the topics discussed are the following: "The Three R's," "Discipline," "Home Work," "Evaluation," "Changes in Instructional Procedures," "College Preparation," and "Preparation for Jobs." Each topic contains a brief discussion of a series of questions. For illustration we quote what the handbook has to say on the meaning of discipline:

As we have come to understand better how children grow and learn, and have sought to modify the program of the school in light of that understanding, "discipline" has come to have a different meaning and purpose. Formerly, control was enforced by some authority outside the child, such as the teacher, for the purpose of maintaining an order which would not interfere with the uniform routine of recitation and drill. . . . It was assumed, moreover, that, if children, as we said, "learned to obey" when they were young, they would acquire the self-control needful for successful living when they grew up and the outside control was removed. In the modern school, however, it is believed that, if a child is to become an intelligently self-controlled adult, he must have practice in controlling himself as he grows up. Just as reading, writing, and arithmetic must be taught, so must the proper use of freedom, or self-control, be taught.

Other topics discussed under the problem of discipline are as follows: "What Is Happening to Discipline?" "Is It Good for Children To Be Made To 'Buckle Down' to Something Hard?" "Are Children Permitted To Do as They Please in School?" "Does the Modern School Teach Children To Respect Authority?" "To What Extent Should Grown People Tell Children What To Do?" "Does the Child's Home Life Influence His Behavior in School?" "Do Children Play Too Much in School?" "Does Present-Day Teaching Make Children Lazy?" "Should Children Have a Part in Planning What They Are To Do?" "Do Pupils Run the School?"

The handbook should be enlightening reading for all persons who receive questions from parents, as well as for those whose concern it is to develop an intelligent public opinion toward school practices which deviate from the traditional.

Community councils aid in educational planning While it is widely recognized that the total job of education for today's needs is too big to be carried on adequately by the school alone, the older concept of the school as the exclusive agency for education is hard to dispel. In his article "Educational Adjustments Necessitated by Changing Ideological Concepts," which appeared in the September number of the *Elementary School Journal*, Ralph W. Tyler, chairman of the Department of Education of the University of Chicago, spoke of community planning councils as agencies which could assure the co-ordination of the various community resources in providing a comprehensive education for young people.

That the idea of a community-wide organization for educational purposes is not merely an idle dream is shown by several recent efforts to form community councils. The experiments being conducted by the Home Economics Education Service of the United States Office of Education in four representative communities to explore the possibilities of community organization afford one illustration. In an article entitled "Community Organization for Family Life Education," which appeared in *School Life*, Edna P. Amidon and Muriel W. Brown describe the general plan.

The purpose is to bring into existence, under the leadership of the school, community councils representing a cross-section of community interests relating to family life. It is the business of these councils to study local conditions affecting family life, to discover the common problems and needs of local families, and to work through existing organizations to interpret these needs and find ways of meeting them. Such a council is not "just another organization" identified with some special program. It is a clearing-house of ideas.

The results of these experiments so far seem to have been better than was expected. In addition to such general consequences as improved community relationships and better appreciation of the role

of family life in democracy, the experiments boast several other tangible outcomes, for example, the provision of better play facilities for children of all ages, exploration of privately financed housing improvements, changes in the programs of family education, and the improvement of report cards to parents.

Another interesting example of educational effort on a community-wide basis is described in a recent pamphlet entitled *Community Organization for Health Education*, which is a report of the Committee on Community Organization for Health Education of the American Public Health Association. The report consists of examples of community organization in thirty-one counties and cities distributed over fourteen states. The study was undertaken because of the realization that, although each of the separate agencies interested in health might be functioning well, certain health needs were not adequately met because these needs were not considered on a community-wide basis.

It is now recognized that even with an adequate program of sanitation, immunization, and law enforcement, the community cannot achieve its maximum health without a thoroughgoing program of health education. Such a program should touch each segment of the community, in accordance with its nature and needs. . . .

It would seem logical, therefore, for school systems, health departments, and private agencies to work together in finding such problems and in moving toward their solution. . . .

Some of the weaknesses of a program which is not based on community planning are immediately apparent. Such a program is likely to be one of special interests, in which neither the differing needs of various areas within the community nor the requirements for different educational methods are recognized. . . .

In any community there are to be found many agencies for health. Each conducts its activities in its own chosen sphere. Each approaches the public for financial aid by direct or indirect means, and each carries on some form of health education. These agencies include the health department, the public schools, private agencies working with youth, and a host of associations interested in specific diseases or health needs. Unless there is some co-ordination, their separate and discrete health-education programs are not likely to provide complete coverage of the community's health problems. . . .

In other words, unless there is joint examination of community-health problems, a joint evaluation of them, and joint planning for their solution, the health-education program of the community will be determined by individuals and

groups, each with special interests to serve. The result may be incompleteness, overemphasis, or duplication. Hence there is need for some form of community organization for health education, which will see the task as a whole and allow each group to undertake those activities which it can best carry out.

Three types of organization are described: (1) those initiated by the schools, (2) those initiated by the health department, and (3) those started under joint sponsorship. In most of the programs described in the report, the results show actual improvement in health care of the community. Thus the 1940 report of Bulloch County, Georgia, lists the following impressive array of accomplishments:

1. Hookworm among school children reduced from 60 per cent to less than 28 per cent.
2. Over 94 per cent of the school children immunized against typhoid fever.
3. Over 90 per cent of the school children vaccinated against smallpox.
4. Over 90 per cent of the children under six years of age immunized against diphtheria.
5. No cases of typhoid fever for one year.
6. No cases of smallpox for two years.
7. More than 3,500 sanitary pit privies built since 1936.
8. Well-balanced lunches served in nine of thirteen schools.
9. In all grammar grades and in junior high school, the children wash their hands before lunch and eat in an orderly manner.
10. All but two schools meet sanitary requirements for drinking water.
11. Septic tanks installed in five schools.
12. Septic tanks installed in twenty-four houses during 1939.
13. Four public water supplies improved.
14. Commercial houses surveyed for rat-proofing program.
15. Malaria control under way—10,000 feet of ditching, 3,860 feet of paved ditching, and 25 acres of swamp drainage.
16. Dairies selling milk in Statesboro, the county seat, meet standards for Grade A milk.
17. Approximately 49 per cent of rural homes screened.
18. Approximately 40 per cent of homes have installed sanitary toilet facilities.

Another illustration of a community-wide attack on the problems of education is the proposed community self-survey of Chicago Heights and Bloom Township in Illinois. The tentative plans prepared by the school superintendents, Ben A. Sylla and Raymond D. Meade, suggest that "the University of Chicago under the sponsorship of its Department of Education assist the community by providing the technical leadership and guidance in making the survey. Most of the work of collecting the data should be done by local indi-

viduals and groups." Some of the outcomes expected of such a self-survey are as follows:

(1) Formulation of a more adequate program for (a) reducing juvenile delinquency and (b) expediting the satisfactory disposition of delinquency cases; (2) development of a community-wide recreation program; (3) establishment of an adequate occupational-adjustment service; (4) development through co-operative means of acceptable objectives for the schools of the community; (5) development of a school program designed to implement the objectives agreed upon; and (6) organization of a program of adult education.

Of these outcomes, co-operative formulation of educational objectives and planning of the school program to accord with the objectives are of special importance. While schools usually are glad to be given community co-operation for whatever programs they have established, few schools as yet are willing to take the counsel of the community in determining educational policy.

Impressive also is the variety of community groups whose co-operation the sponsors of the plan hope to obtain. Among those listed appear the names not only of the welfare and service agencies, usually interested in education, but also such groups as the Manufacturers' Association, the Trades and Labor Council, the Retail Merchants' Association, the Bloom Township Branch of the Cook County Farm Bureau, and patriotic organizations—the American Legion, the Daughters of the American Revolution, the Veterans of Foreign Wars, and the Ladies of the Grand Army of the Republic.

Realistic education for living in a community Teachers who are interested in exploring the possibility of community action by pupils should look into the pamphlet called *Community Action and the School* by Lloyd Allen Cook, published by the College of Education of the Ohio State University. Through a series of brief, illustrative cases of community action, Mr. Cook develops the thesis that "we can do better in community contacts than we have done." He maintains that pupils' experiences in studying communities should not be limited to "the kind of status studies which end in the gathering of so many inert facts for which there is no particular value or use. Our need is to see the community in action, to learn how things work."

These [community] processes should be brought into the curriculum in a more realistic sense than is generally true. This does not mean that little chil-

dren should be overly burdened with the ills and woes of a community's less fortunate families or that high-school youngsters should be put on the picket lines. It means only that education *for* community life is education *in* community living and that this should take the form of a series of graded experiences.

While Mr. Cook emphatically stresses the need of community action for the sake of realistic education in community living, he does not overlook the rather too common difficulties encountered by teachers attempting to initiate pupils into some form of realistic community education. Among the illustrative cases there are several in which the teacher was "stumped by the little things . . . that should never have happened had we been a bit wiser in our planning":

At a school deep in an urban slum, a group of third-graders was busily examining a Guernsey cow and calf. These children had never before seen such animals in the flesh, and they were having the time of their life. Inside their classroom, on tables and desks and the blackboard, was as pretty a lesson on "A Plan for Our Farm" as one could hope to see. Here, indeed, were realism and imagination in teaching. But the aftermath was not so encouraging. One dairy had protested the publicity given its competitor which had furnished the cow and calf, lodging a vigorous complaint with the school board. We can laugh off such nonsense, to be sure, but that teacher could not. Her job was endangered.

EXCHANGE OF PROFESSIONAL WORKERS WITH OTHER AMERICAN REPUBLICS

THE Division of Cultural Relations of the Department of State is anxious to develop with the Latin-American republics an exchange of students, teachers, and workers in other professions. A circular letter has been sent to universities, asking for names of persons qualified for service in the other American republics. The following qualifications have been set up: "Speaking knowledge of Spanish or Portuguese, preferably some firsthand knowledge of the other American republics, a pleasing personality, organizing ability, qualities of leadership, ability to adjust to new situations, a person representative of the best in American life." The letter states also that "the salary range for these positions would be from \$2,600 to \$6,500. It is expected that a certain number of these positions will become available in the immediate future." While the positions are preferably for the period of the emergency, it may be possible to arrange for one-year appointments.

BRITISH TEACHERS TO STUDY AMERICAN HISTORY

APPARENTLY British educators not only are "carrying on" but are undertaking new projects as well, in spite of the war. A brief note appearing in the *London Journal of Education* tells of one such project.

The Board of Education are impressed with the fact that British children are much less well informed about the history, life, and achievements of the United States of America than are American children about the history, life, and achievements of Great Britain. Accordingly, the Board of Education are arranging a number of short courses on the United States of America, their past history and current problems, for teachers in all types of schools. The lecturers at the courses will include Americans of distinction, as well as British subjects with wide and recent experience of the United States. Six such courses, each of four or five days' duration, have already been arranged and will be held in London, Oxford, Newcastle-upon-Tyne, Leeds, Exeter, and Aberystwyth between the end of July and the beginning of September. Further courses will be arranged later in the year in other parts of the country.

THE THREE R'S FOR THE DRAFTEES

A RECENT number of the *Survey Midmonthly* carries a news note summarizing the efforts to provide draftees with a "functional knowledge" of the tool subjects. Apparently not all the men responding to the draft qualify for the minimum army requirement of a fourth-grade education.

Classes in reading, writing, and arithmetic have been organized for servicemen at Fort Jackson, South Carolina. Four classes are scheduled weekly, with two sessions of two hours each on Wednesdays and Fridays. The teaching staff is composed of twenty-five teachers of the state W.P.A. educational program and the State Department of Adult Education. Attendance is compulsory for draftees who lack "functional knowledge" of the tool subjects. . . . The Columbia, South Carolina, newspaper, *The State*, recently reported that three-fourths of the Negro men and one-third of the whites who responded to the draft call in South Carolina have had to be exempted because they were illiterate, semi-illiterate, or lacked the minimum army requirement of a fourth-grade education. . . . In New York City, the W.P.A. adult-education program has developed a test designed to standardize the examination of inductees to meet the army's requirement of a fourth-grade education or its equivalent. The test was tried out on 234 fourth-grade pupils in four public schools and the results used to determine the passing grade for inductees. Local selective-service boards will refer men in need of further English education to special courses, which will be given free under the direction of the W.P.A. adult-education program.

HILDA TABA

HERE AND THERE AMONG THE SCHOOLS

THE reports herewith presented relate to four significant problems of common interest to teachers and administrative officers of elementary schools. These include an example of the enrichment of the music program in the small schools of a county in West Virginia, the results of a study of the high-school records of graduates of different types of rural schools in one Indiana township, an account of a New Mexico teacher's plan for the improvement of speech among the children of her sixth-grade class, and the description of a New England superintendent's bulletin addressed to parents of children who are about to enter school for the first time.

Using the radio to teach music in country schools Superintendent Olin C. Nutter, of the Cabell County, West Virginia, public-school system, favored the *Elementary School Journal* with a copy of the report of Claren Peoples, director of vocal music, which describes a plan inaugurated last year for the use of the radio in music instruction in the county schools. Since West Virginia is a county-unit state, the director of music is concerned with the teaching of music in both rural and urban schools. Naturally the more serious problems are encountered in the effort to provide a varied program in the one- and two-room schools, where the facilities for music instruction are relatively limited. With the generous co-operation of Station WSAZ in Huntington, the director is allowed radio time twice each week for the presentation of a fifteen-minute lesson especially designed to enrich the music program of the small rural schools. Each lesson is planned to include four stimulating activities, namely, singing familiar songs, learning a new rote song, rhythmic expression, and directed listening. The necessary time and the facilities of the radio station are provided free of charge.

Success in high school of pupils from differently organized rural schools Under the township organization of public schools in Indiana, many sizable consolidated schools are providing instruction for large numbers of children, many of whom would otherwise be attending small schools such as those

which characterize rural education in areas where consolidation has not been effected. Existing consolidations in many townships, however, do not comprise all the schools in rural territory, and the one or more high schools in such townships regularly receive each year some entering Freshmen from consolidated elementary schools and others from one-teacher schools. Principal Floyd Kennedy, of the Scottsburg Consolidated School, one of the two consolidated elementary schools in the township whose graduates usually enter the Scottsburg High School, recently reported the results of a study of the marks recorded for the pupils in the last five Freshman classes of this high school. The motive for Mr. Kennedy's study was the determination of the comparative success in first-year high-school work of the pupils who entered from the consolidated schools and those who came from one-room rural schools. The comparison was made in terms of teachers' marks expressed in percentages.

During the five-year period reviewed, there were 177 graduates from the consolidated schools and 150 from the one-room schools whose records were available for both semesters of their Freshman high-school year. Averaging the marks of the two groups in their first year of high-school work, Mr. Kennedy reports the rating of the consolidated-school group as about six points higher than the average attained by graduates of one-room rural schools. Fifty-three per cent of the consolidated-school graduates were girls, whereas only 47 per cent of the graduates of one-room schools were girls. In both groups the scholastic ratings for the girls were higher than those reported for the boys, but the boys from the consolidated schools attained a higher average than did the girls from the one-room schools. Comparing the records of the consolidated and the one-room school groups on the basis of average marks for the first and second semesters separately, Mr. Kennedy found that both groups showed improvement in the second semester and that the increase in the rating was greater for the graduates of the one-room schools. Mr. Kennedy concludes from these findings that the graduates of the one-room schools probably face more difficult adjustments when they enter high school and he suggests that these adjustments might be facilitated by appropriate guidance procedures.

Speech-training based on types of communication Those elementary-school teachers whose classes include large numbers of pupils from homes where foreign languages are used will be interested in the procedure employed by Bernice Elliott, of Albuquerque, New Mexico, in her effort to promote speech adaptation among her sixth-grade pupils, three-fourths of whom were of Spanish-American lineage. Believing that a clearer understanding of the nature and requirements of common mediums of communication would provide a forceful stimulus for the improvement of speech on the part of these children, Miss Elliott organized a unit of study on types of communication, with lessons distributed throughout the year. In addition to the usual procedures involving committees, research, reports, and various other self-directed activities, the program included a series of class meetings to be directed by adult members of the community whose business, professional, or social endeavors were identified with particular forms of communication. Thus the objectives and the technical aspects of publishing the newspaper were explained by a reporter in the city; an artist talked on the topic "Art as Communication"; the supervisor of music in the public schools discussed "Music as a Form of Communication"; a well-known traveler gave a lecture on the subject "What Bells Communicate"; an authority on etiquette discussed "Manners"; and a pediatrician talked about "Speech as a Carrier of Health."

During the lecture period the pupils made no effort to record the information given them. Frequently they were drawn into the discussion by the speaker or were given an opportunity to ask questions. Later each pupil wrote his own digest of the lecture. Toward the close of the year recordings were made of talks by the pupils as they reported what they had learned about different forms of communication. When the recordings of their own oral presentations were played back to them, the pupils were concerned about the deficiencies of their powers of speech and were prompted to try to overcome them. At the end of the year the supervisor presented a résumé of the year's activities at a tea given by the pupils in honor of their guest speakers. Miss Elliott and the pupils were much pleased with this unit and its outcomes.

A bulletin for parents of children entering school An attractive and conveniently indexed bulletin of information is used by Superintendent John L. Miller, of Brockton, Massachusetts, as a means of communicating to parents the information they need in preparing their children for the first year's attendance at school. Specific instructions are provided regarding the means of determining the boundaries of the school district, the time and the method of registering, regulations regarding vaccination and other measures for the control of communicable diseases, and the system of signals employed to notify parents of the decision to close the elementary schools if inclement weather makes closing desirable. Suggestions are presented to enable parents the better to explain to the child the nature of school activities, as a means of securing a proper attitude on the part of the child. There are suggestions also regarding the kinds of clothing with which children should be provided in order that they may care for their own needs independently. The services of the child-guidance clinic are described in detail, and the parents are invited to consult the clinicians on problems pertaining to child training and personality development. Methods of developing wholesome health habits and of stimulating desirable participation in group activities are carefully explained. Printed in booklet form, with the length of the pages staggered to provide for indexing the topics at the bottom of each page, the bulletin is a serviceable device for aiding parents in the task of getting their children ready for first entrance to school.

WHO'S WHO FOR OCTOBER

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by HILDA TABA, assistant professor of education at the University of Chicago. HOWARD A. GRAY, director of field studies, Erpi Classroom Films Inc., Long Island City, New York, describes an experiment undertaken to determine the reactions which viewing an educational film provoked among teachers and teachers in training. He suggests how these variabilities may be used for more effective evaluation and use of instructional sound films. J. W. JOHNSTON, principal of the elementary schools at

Lebanon, Ohio; J. H. COLEMAN, professor of education and principal of the McGuffey Schools at Miami University, Oxford, Ohio; and W. S. GUILER, professor of education and director of remedial instruction at Miami University, tell of the procedures utilized and the results attained in a remedial-reading project conducted with fifth-grade pupils. DOROTHY M. ROLSTON, critic teacher of Grades VII and VIII in the elementary school of the State Normal School, Brockport, New York, and HERBERT F. SPITZER, principal of the University Elementary School of the University of Iowa, report a study of practices in the use of "and" when numbers of three or more digits are expressed in words. LEILA STEVENS, teacher of Grade II in the Marquette School, Madison, Wisconsin, after analyzing the occupations mentioned in certain second and third readers, concludes that much of the material is rather far removed from democratic, present-day life and that authors and publishers have given less attention to content than to format. The selected references on various subject fields have been prepared by the following persons: WILLIAM S. GRAY, professor of education at the University of Chicago; DORA V. SMITH, professor of education at the University of Minnesota; FREDERICK S. BREED, associate professor of education at the University of Chicago; W. H. GRAY, associate professor of educational psychology at Kansas State Teachers College of Emporia; KENNETH J. REHAGE, teacher in the Laboratory Schools at the University of Chicago; and EDITH P. PARKER, associate professor of the teaching of geography at the University of Chicago.

The writers of reviews FLORENCE L. GOODENOUGH, research in the current number professor in the Institute of Child Welfare at the University of Minnesota.

EDGAR W. MILLS, principal of the William McKinley School, East Chicago, Indiana. JOHN GUY FOWLKES, professor of education at the University of Wisconsin. NELSON B. HENRY, associate professor of education at the University of Chicago. MARGUERITE E. SCHULER, teacher in the Laboratory Schools at the University of Chicago.

EVALUATION AND USE OF SOUND FILMS

HOWARD A. GRAY

Erpi Classroom Films Inc., Long Island City, New York



INTRODUCTION

THE variety and multiplicity of reactions which almost any teaching film will provoke among individual educators are remarkable. Doubtless such a phenomenon occurs because varying backgrounds and interests give each person a particular lens through which to view a film. Perhaps a wide range of reactions is a wholesome indication of freedom of thought or an indication of the many strong or weak features of a film. Regardless, the purpose of this article is to point out such variabilities and to suggest how they may be made a basis for the more effective evaluation and use of sound-film materials of instruction.

PROCEDURE

To gather data which would permit an analysis of individual reactions to a film, ninety-eight undergraduate and graduate students enrolled in an educational psychology class¹ at Teachers College, Columbia University, were asked to respond to a questionnaire before and after viewing the sound film "Navajo Children."² The first part of the questionnaire was administered before the film was shown and called for information on the respondent's sex, age, length of academic study, major field of educational interest, experience with amateur and professionally prepared films, amount of instruction received in the use of visual aids, and opinions on the general effectiveness of instructional sound films.

The group was then asked to view the film, the title of which was not shown or mentioned, for the purpose of appraising its general and

¹ The class was taught by Rudolf Pintner, whose co-operation made this investigation possible.

² A one-reel subject produced by Erpi Classroom Films Inc., in collaboration with A. I. Gates, of Teachers College, Columbia University; Ernest Horn, of the State University of Iowa; and Celeste C. Peardon.

specific educational values and the uses to which it might be put in an instructional program. Following the showing, the group was requested to respond to the second part of the questionnaire, dealing with such considerations as the range of grades through which the film would be suitable; its course-of-study correlations; its value for both teachers and pupils; its technical qualities; the desirability and the nature of accompanying handbook materials; and a suitable title for the production.

A new print of the film was projected on a beaded screen by an experienced operator using a 750-watt, standard sound projector, the mechanism and controls of which were in good adjustment. In short, every effort was made to provide as satisfactory a screening as possible in a room which was acoustically treated.

NATURE OF THE EVALUATING GROUP

The majority of respondents in both the experienced and the inexperienced teaching groups were women. The former group was about nine years older; had a greater range of ages; possessed slightly longer periods of undergraduate and graduate study; and had a little over seven and a half years of teaching experience, mostly in the elementary-school grades. Surprisingly few had ever taken a course in visual aids; had used films for teaching purposes; had experimented with film materials; or had employed a film-rating scale. About a sixth of the experienced and a quarter of the inexperienced teachers had made amateur movies, chiefly as a hobby. The number of undergraduate fields represented was descriptive also of teaching positions held and graduate fields of study pursued. Therefore the first suggestion coming from the data is that the background and the training of teachers should be considered in planning a course on audio-visual aids suited to the needs of particular groups.

REACTIONS BEFORE VIEWING THE FILM

Before seeing the film, both groups responded to the request: "Describe in a few words general procedures you have followed or would follow in using a sound film prepared specifically for teaching purposes." The responses fell into three general classifications: those related to specific purposes (21 ideas), those having to do with

general preparatory procedures (55 ideas), and those concerned with follow-up activities (31 ideas). Twenty-seven per cent of the experienced teachers and 56 per cent of the inexperienced teachers failed to respond. Teachers with experience offered by far the greater number of constructive ideas. Many of the suggestions described general procedures which are currently accepted as desirable. These findings suggest that unselected groups of teachers will vary in ability to use a film, that a film may be used for a variety of purposes, and that an inventory of teacher opinions will be helpful in developing a methodology.

Before viewing the film the respondents were also asked to give their opinions of the general effectiveness of instructional sound films. Ninety-nine reactions to this point were obtained. Most of the values given were thought-provoking, and many have been substantiated by experimental evidence. Of particular significance were those references pertaining to the role of the individual teacher in successful use of films, the importance of film content and arrangement, and the value of such materials in supplementing other learning aids for overcoming the difficulties of verbalism.

DESCRIPTION OF THE FILM

The film "Navajo Children" was prepared particularly for use in the primary grades. It is built around the experiences of a Navajo Indian boy and girl who move with their family, house furnishings, and livestock from their winter quarters to a summer location in the Southwest. En route they camp for the night with other Navajos. After supper native songs are sung around the campfires. In the morning the boys stage a marksmanship contest with bows and arrows. On arriving at their summer home, members of the family engage in various tasks, including plowing, planting, herding sheep, shearing wool, repairing their hut, and weaving. Navajo conversation is reproduced in several sequences.

REACTIONS AFTER VIEWING THE FILM

In reply to the question, "Through what range of school grades do you think the film could be used effectively?" a wide variety of responses was obtained. The film was considered appropriate for use

from the first-grade through the college level, with greatest emphasis on the intermediate-grade level. It seems, therefore, that consideration should be given to the range of school grades through which a given film is suitable. Because of the absence of reading requirements, it is likely that the range would be greater than that for conventional materials with which teachers have been accustomed to work.

With respect to course-of-study subjects to which the film could contribute learnings, the questionnaire replies fell into two categories: twenty-three conventional subject-matter classifications, varying from agriculture to psychology; and ten topical assignments usually found in such courses, from Americanization to weaving. This seems to indicate the importance of the individual teacher's alertness in deriving maximum pupil benefits from a film. If, by showing the film in question to an intermediate-grade class in social studies, the teacher could incidentally associate learnings and develop appreciations being striven for in a literature class, would the film be worth while? Again, if a boy could obtain a bit of vocational orientation while studying the film in connection with a history project, would it behoove the teacher to see that he had the opportunity? Such possibilities should be determined in the evaluation and use of any teaching film.

Responses to the question of what specific values the film would have for pupils fell into three groups: those having to do chiefly with extending the classroom environment of the pupil, such as "shows desert Indian life"; those pertaining mainly to psychosensory reinforcement, exemplified by "Helps pupil understand teacher," and "Aids visualization"; and those related to a portrayal of wholesome human relations and understanding, like "Teaches kindness" and "Makes Indians human." As with the film-subject correlations, desirable combinations of teaching and learning outcomes were intimated. For example, if, in addition to gaining a general impression of American Indian life in the Southwest, *one* pupil is enabled to understand the meaning of *one* previously meaningless word and comes to appreciate the values in group co-operation, has his learning experience been functionally practical? In the interests of pro-

gressive teaching techniques, would it matter whether these learnings occurred in Grade I or during the college Freshman year? Teachers and supervisors should be made aware of possibilities such as these in order that they may plan film lessons objectively in accordance with local interests and needs.

That the film also contained many values for teachers is evident from the responses to the question on that point. Many of the responses, while differently worded, conveyed the same idea and directed attention to the extent of individual differences in teacher expression. Three types of values for teachers were indicated: those helping the teacher to understand and to appreciate more fully Navajo Indian life; those having to do with aiding the teacher in directing pupil learnings; and those helping the pupil so that the teacher's task is less arduous or uncertain. Such a range of outcomes is accounted for by individual backgrounds, interests, and ability to think in terms of ultimate values. It was interesting to note that 15 per cent of the inexperienced teachers failed to respond to the question compared to only 8 per cent of the experienced group. The latter also contributed about 20 per cent more ideas than did the former.

In order to study the general impression which the group obtained from the film, the respondents were asked to suggest a title for the picture. (As was previously indicated, the title assigned to the picture was not shown on the screen.) Of the eighty titles proposed, *seventy-eight were differently worded. The patterns of thought* indicated by the words used were of a variety of themes. Twenty-three per cent of the experienced teachers and 17 per cent of the inexperienced group failed to suggest a title. The dominant pattern emerging was the combination of words "Navajo Indian Family Life," expressed on the average by about a third of both groups. This may be interpreted as indicating possible limits of major impressions which a teaching film makes on an educational group. These findings do not mean that the thought patterns occurring with lesser frequency are not important but that they have less mass appeal. Perhaps such patterns might be valuable as leads to the development of secondary and special interests related to a film's content and use.

APPRAISALS OF THE FILM'S TECHNICAL FEATURES

In response to the request, "Evaluate the photographic elements of the film," three types of replies were obtained. One type dealt with terms frequently used by motion-picture experts in making a general evaluation of the quality of photography in a film, such as "good," "poor contrast," "sharp," and "well done." A second type of response was of a little more refined nature and was classified under the heading of "aesthetic references": "beautiful," "vivid," "nice," etc. A third type of response of a miscellaneous nature dealt not with the quality of the photography but with elements of its composition and such extrinsic features as "fast pace" and "no eyestrain." All these factors doubtless influence the individual's appraisal of a film regardless of his knowledge or vocational status, and they must be provided for in the evaluation process.

These reactions direct attention to the possibility of a film's being misjudged with respect to its technical excellence because of conditions under which it is projected. A projector in poor adjustment or without adequate power of illumination can easily distort the technical or artistic appearance of a motion picture. The type of screen, the acoustical properties of the reviewing room, the angle at which the picture is observed, the sensory normalcy and acuity of the observer, and technical knowledge also enter into and color the impressions made with regard both to generalities and to specific details. The film in question previously had been judged excellent by sound-motion-picture technicians and several educational specialists.

With respect to the appraisals of the interpretative narration of the film, responses were of two types: those appraisals having to do with the phonic elements involved—"clear," "pleasing," "stilted," etc.—and those pertaining to the selection and arrangement of words making up the narration. As with other types of evaluations, a wide range of expressions conveying different ideas and shades of meaning was noted. On examining these responses, one may well wonder to what extent such variables as hearing acuity, tone discrimination, position of the auditors in relation to the loud-speaker, together with the respondents' interests, knowledge, and backgrounds, influenced the decisions made. It seems obvious that no uniform method of

appraising this aspect of an instructional sound film can be developed without the control of such variables.

Closely associated with the interpretative narration, and evidently confused with it, were the responses evaluating the sound effects of the film. These are referred to in the motion-picture industry as (1) sounds naturally heard in the action being portrayed and (2) sounds of an incidental nature, such as background music or other sounds inserted for special purposes. Two types of evaluations were made: those referring to the quality of both sound effects and narration and those concerning the values of the sound in general. It seems that the same variables discussed for the interpretative narration operate with respect to this question. An added factor is brought out, namely, a film evaluator should have a thorough understanding of the quality or qualities on which he is to pass judgment. This brings up the questions: How many educators are qualified to pass on the finer technical aspects of a film? Is there any need for great numbers of educators to qualify in this skill? Is there not a practical limit of technical excellence to which a film needs to adhere for everyday use in the classroom?

EVALUATION OF SUPPLEMENTARY MATERIALS

The matter of providing supplementary study materials to accompany films in the form of teachers' handbooks long has been a problem for producers of teaching films. The content, the arrangement, and the scope of such materials are still matters of opinion and probably always will be until some genius discovers the *one* method of using *all* types of films. In order to obtain some information on what the content of a film handbook or study guide should include, the teachers were asked to express their preferences. Nearly a third of the experienced teachers and a fourth of the inexperienced volunteered no information on the subject. Helpful responses came under the headings of "How to use the film," "Description of the film," "Follow-up activities," "Additional subject matter," "Bibliography," "Objectives of the film," and "Related visual aids."

In the writer's opinion, the intelligent preparation of handbook materials for a film can come about only after the film has been used in a variety of teaching and learning situations. Out of these may be

recorded creative ideas for using a particular film in different stages of a unit of instruction; difficulties experienced by both teachers and pupils; the need for specific information with which to supplement the film's use, including subject matter, bibliographies, and types of successful study projects. If a film is suitable for use throughout a range of grade levels and school subjects, samples of successful lesson plans should be included in the handbook for the benefit of teachers who will come to use the film. There is no law against periodically revising a film handbook as rich new materials are developed.

THE MATTER OF FILM-RATING SCALES

The difficulties of attempting to realize objectivity in situations involving subjective judgments are well delineated by the variabilities discovered in the preceding data. Similarly any film-rating scale requiring subjective consideration of its objective features can yield only partially objective results. The majority of the teachers referred to in this report believed that some sort of objective device for rating a film would be helpful but were unable to suggest a form for such an instrument.

In relation to the point in question, and in conclusion, it is believed that the objectivity fetish characterizing many film-rating scales should be abandoned in favor of a more simplified, subjective, and practical method of determining the worth of a given film. Educational "specialists" can only roughly estimate the nature and the scope of the values possessed by a film. Boys and girls are seldom found in the offices of educational "specialists" or in the studios of motion-picture producers. Teachers, too, are conspicuously absent from these centers of inspiration. As with soldiers and subalterns on the firing line, teachers and pupils in the classroom soon are able to detect weakness in the plans of the general staff. They are the ones who determine the value of method. General staffs later may study the results and perhaps bring about a coalescence for the improvement of method. This belief at least seems worthy of trial in the matters of evaluation and use of sound films.

IMPROVING THE READING ABILITY OF ELEMENTARY-SCHOOL PUPILS

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THE purpose of this article is to report the procedures utilized and the results attained in an experimental project in remedial reading conducted with fifth-grade pupils in the public schools of Lebanon, Ohio. During the course of the experiment all the fifth-grade pupils pursued their regular work in reading. The thirty-four pupils constituting the experimental group were given additional training in remedial reading; the remaining pupils did not have this additional training. The total amount of time spent on the remedial project did not exceed twenty-seven hours. Two forty-five-minute periods a week over a span of eighteen weeks were devoted to the work. Although the study was made with elementary-school pupils, the procedures followed and reported are applicable at the junior high school, the senior high school, and the college level.

EXPERIMENTAL PROCEDURE

Pairing the pupils into two equivalent reading groups comprised the first step in the project. For this purpose Form A of the Iowa Silent Reading Tests, Elementary Test (new edition) was given to the seventy-seven pupils who were enrolled in Grade V when the experiment began. The reading test consists of six parts designated as follows: (1) rate-comprehension, (2) directed reading, (3) word meaning, (4) paragraph comprehension, (5) sentence meaning, and (6) location of information. The actual pairing of pupils was made on the basis of the total of the raw scores on those parts of the test measuring the aspects of reading comprehension which the remedial project sought to improve. The two groups were equated by match-

ing each pupil selected for one group with a pupil of like reading ability for the other group. In order that valid pairing should be obtained, only those pupils were selected whose raw scores on the test could be matched within five points. Actually, the pairing was quite close. Thirty-one pairs were matched within four points of raw test score; twenty-nine pairs, within three points; twenty-two pairs, within two points; fourteen pairs, within one point; and four pairs, with identical scores. On this basis thirty-six pairs of pupils were formed. Two of the pairs were broken up because of sickness and transfer of pupils, thirty-four pairs being left intact. For convenience of later discussion these thirty-four pairs of pupils will be referred to as the experimental group and the control group.

The second step in the project consisted in the organization and the administration of a systematic program of remedial reading for the experimental pupils. The instructional materials used in the remedial program were organized into thirty-five reading units. A fairly adequate idea of the nature and organization of the various units can be obtained from the unit that is reproduced below.

READING UNIT NUMBER 1

Pupil's Score

The first effect of the cotton gin was that it caused an enormous increase in cotton-growing in the United States. Cotton began to be grown not only in the older Southern states but all along the Gulf Coast and far into Texas. The plantations extended far into the interior, and cotton was even grown on the slopes of the hills. Within half a century the United States was producing seven-eighths of the world's cotton. It could never have produced so much without the cotton gin.

A second effect was that slavery increased wherever cotton-growing spread. In 1793 slaves had not been able to earn much money for their masters, and people had thought that within a few years slavery would disappear entirely. Many of the famous Southerners at that time freed their slaves. But when cotton-growing spread over the South, the planters had to have workers to plow, weed, pick, and market their crops. Not enough white men could be hired; so great numbers of slaves were needed instead. Little talk of freedom was heard now. The cotton gin caused slavery to increase.

Century: one hundred years

Enormous: very, very large

Cotton gin: machine used to take the
seeds out of cotton

Entirely: completely

Extended: stretched out

Freed: made free; gave liberty to

Freedom: being free; liberty

Gulf Coast: land along the Gulf of Mexico

Increase: gain in size, numbers, and the like; growth

Interior: land far from the ocean, not near the sea

Market: sell, or put up for sale

Plantations: very large farms on which most of the work was done by slaves

Planters: rich men who owned large farms worked by slaves

Plow: dig the ground so that plants can grow well

Producing: bringing forth; supplying; yielding

Slavery: the practice of owning and working persons or slaves

Southerners: men who lived in the southern part of the United States

Weed: remove weeds by pulling or cutting

Workers: persons who work.

GENERAL DIRECTIONS FOR UNIT I

Write your answers in the spaces provided. Under "Getting Word Meanings," you will write words as answers; under "Getting the Facts," you will write *A*, *D*, or *N* as answers; under the other headings, you will write numbers as answers.

Getting word meanings.—In the space at the right, write the underlined word which means:

- | | |
|--|---|
| 1. owners and bosses of slaves; directors; employers..... | 1 |
| 2. growth; enlargement; extension..... | 2 |
| 3. sides of a hill; slanting surfaces..... | 3 |
| 4. persons who are owned and worked by others; bondsmen..... | 4 |
| 5. pass out of sight; vanish; pass out of existence..... | 5 |
| 6. employed to work for wages..... | 6 |
| 7. center; land not near the border; inland part..... | 7 |
| 8. totally; fully; wholly; altogether..... | 8 |
| 9. vast; huge; immense; colossal..... | 9 |

Choosing the best title.—The best title for this selection is:.....

- | | |
|------------------------------|--|
| 1. How Slavery Spread | 3. Increase in Cotton-growing |
| 2. Effects of the Cotton Gin | 4. How the Cotton Gin Increased Cotton-growing |

Getting the main idea.—The main idea in this section is that.....

- | | |
|---|--|
| 1. The cotton gin helped cotton-growing and slavery to increase. | 3. Cotton-growing spread because there were so many slaves to work in the fields. |
| 2. The United States is one of the most important cotton-growing countries. | 4. Because of the cotton gin, cotton-growing spread over the South and into Texas. |

Getting the facts.—For your answer write *A* (agrees), *D* (disagrees), or *N* (not included).

1. Many of the slaves came from Africa..... 1
2. The cotton gin was invented by Eli Whitney..... 2
3. Slavery increased wherever cotton-growing spread..... 3
4. Cotton was grown only in the older Southern states..... 4
5. In 1793 people thought that all slaves would be freed..... 5
6. The cotton gin caused the owners to free their slaves..... 6
7. There were more slaves than white men working in the cotton fields..... 7
8. After the cotton gin was invented the planters had more slaves than they needed..... 8
9. The United States produces as much cotton now as it did before slaves were freed..... 9

Making an outline.—Make a partial outline of the selection by writing the numbers of four of the following items in the proper spaces.

- | | |
|-------------------------------------|--------------------------------|
| 1. Freeing of slaves | I. Where cotton-growing spread |
| 2. Spread of slavery | A..... |
| 3. Far into the North | B..... |
| 4. Along the Gulf Coast | |
| 5. All over the Southwest | |
| 6. More money for the slaves | II. Effects of the cotton gin |
| 7. Increase in cotton-growing | A..... |
| 8. In the older Southern states | B..... |
| 9. More wages for the white workers | |

Drawing conclusions.—It seems fair to conclude from this selection that..... and that.....

- | | |
|--|---|
| 1. Most masters had freed their slaves before 1793. | 3. Cotton-growing spread wherever there was slavery. |
| 2. Slavery increased wherever cotton-growing spread. | 4. Slavery might have disappeared much sooner in the United States if cotton-growing had not increased. |

Each unit begins with a reading selection of not more than three hundred words. Three criteria were employed in the choice of the selections: (1) pupil interest in the content, (2) social significance of the content, and (3) difficulty of the content. Just below each selection was a glossary in which all difficult words and words carrying unusual meanings in the selection were defined. The purpose of the glossary was to enable the pupil readily to get the meaning of any word which might block his effort to comprehend the thought.

The main problem encountered in constructing the glossary was to determine the words which might block the pupil's effort to comprehend the meaning of the selection. Two kinds of information were available to serve as criteria for the choice of the items included in each glossary: Thorndike's estimates of the number of words recognized by the pupil at a given grade level¹ and the Buckingham-Dolch free-association study, which provides a list of words that children in different school grades are able to recognize.² In using this information, one might assume that words below the fifth-grade level would not need to be defined. However, in order to protect the retarded readers, all words in the selection that were as many as two years below the pupils' grade level were defined in the glossary. This practice of providing for two years of retardation in the development of vocabulary material was followed in the construction of all the units.

The actual selection of the glossary items for the fifth-grade units was made in the following manner. Thorndike estimates that the average pupil at the end of Grade II recognizes thirty-six hundred words. While the exact thirty-six hundred words that an average pupil might recognize are not known, it was assumed that they were most likely to be those in most frequent use. Consequently, on the basis of the first criterion, any word in the selection above the first three thousand words (a grade level of 2.5) in the *Teacher's Word Book*³ was defined in the glossary. By the second criterion, any word above the second-grade level on the Buckingham-Dolch list was defined. Some additional words which do not meet these criteria were defined, for example, a word used in such a unique way that its meaning was obviously more difficult to comprehend than its rating by either of the word lists would indicate.

The glossary in each unit was followed by exercises designed to

¹ E. L. Thorndike, "The Vocabularies of School Pupils," *Contributions to Education*, I, 69-76. Edited by J. Carleton Bell. Publications of New York Society for the Experimental Study of Education. Yonkers-on-Hudson, New York: World Book Co., 1924.

² B. R. Buckingham and E. W. Dolch, *A Combined Word List*. Boston: Ginn & Co., 1936.

³ Edward L. Thorndike, *A Teacher's Word Book of the Twenty Thousand Words Found Most Frequently and Widely in General Reading for Children and Young People*. New York: Teachers College, Columbia University, 1931.

improve pupils in six phases of reading comprehension: (1) word meanings, (2) total meaning, (3) central thought, (4) detailed meanings, (5) organization, and (6) summarization. Different techniques were employed in the construction of these exercises. Because of space limitations, only the technique used in connection with the development of word meanings will be described here.

In most of the units there were twelve sets of synonyms or descriptive phrases fitting the meaning of certain words in the selection which had been underlined. Usually more words were underlined than were required for the answers, a precaution that had been taken to exclude the possibility of mere matching. The primary purpose of this type of activity was to give the pupil an opportunity to broaden his understanding of words and thus to increase his stock of word meanings. This purpose was achieved in different ways. Wherever it was possible, several synonyms corresponding to the answer were used. When two or more synonyms were used, these were arranged in the order of their difficulty, the easiest one being placed at the left of the word-meaning exercise so that the pupil's search for the correct answer began with a familiar word.

The remedial work was organized on an individualized group-instruction basis. In the case of those phases of comprehension in which a majority of the pupils were weak, group instruction was employed. When only a limited number of pupils experienced difficulty with a given phase of comprehension, instruction was organized for the particular pupils concerned. Individualization of the remedial work was made possible because the reading units were organized in a way that enabled each pupil to obtain practice on the phases of comprehension in which he manifested greatest deficiency. An attempt was made to render each experimental pupil conscious of his own weaknesses in comprehension by helping him discover the nature of his own types of reading difficulties through an analysis of both his own preliminary test paper and his completed reading units. Furthermore, each pupil was encouraged to keep a record of his own shortcomings after these had been identified. Each pupil was shown how to compare his own score on each reading unit with the accompanying norm, so that he could readily observe his progress.

Provision was made for a considerable degree of self-administration of the remedial program. The organization of the reading units was such that a minimum amount of teacher direction was necessary. The exercises on each of the six phases of comprehension were preceded by clear-cut directions, and all the exercises were of the objective type. Moreover, scoring keys were available so that each pupil could score a reading unit as soon as he had completed the exercises. This provision for self-direction and self-scoring relieved the teacher of much routine work and enabled her to use the time thus saved in showing individual pupils how more careful and effective reading would have enabled them to answer correctly the items which they had missed.

The final step in the project consisted in measuring the amount of improvement in reading comprehension made by the pupils in the experimental and the control groups during the course of the experiment. For this purpose Form B of the Iowa Silent Reading Tests was used. This test is the equivalent of the preliminary test in content and difficulty. Great care was exercised to keep uniform the conditions under which the initial and the final tests were given and to secure control over nonexperimental factors while the experiment was in progress. Since these precautions were taken, it seems fair to assume that the difference in improvement in reading ability made by pupils in the experimental group over those in the control group constitutes an objective measure of the effectiveness of the remedial-reading program. The experimental findings are recorded in Tables 1 and 2.

RESULTS

Table 1 shows the amount of improvement that was made by the two groups of pupils both in reading rate and in reading comprehension. Analysis of the tabular data reveals a number of important findings.

The most outstanding of these is the fact that the pupils in the experimental group improved more both in reading rate and in reading comprehension than did the pupils in the control group. The improvement in rate of reading was significantly greater for the experimental group than for the control group, even though no training in speed of reading was given during the course of the experiment.

Since no attempt was made to increase the speed of reading, the greater gain in rate made by pupils in the experimental group over

TABLE 1
MEAN SCORES ON INITIAL AND FINAL TESTS AND GAINS MADE ON
IOWA SILENT READING TESTS BY THIRTY-FOUR PAIRS
OF FIFTH-GRADE PUPILS

MEASURE COMPARED AND GROUP	INITIAL TEST	FINAL TEST	GAIN	PERCENT-AGE OF GAIN*
Entire Test				
Number of sentences read in two minutes:				
Experimental group.....	27.0	28.7	1.7	6.2
Control group.....	28.4	28.8	0.4	1.5
Total of raw scores on phases of reading studied:				
Experimental group.....	52.1	67.4	15.3	29.3
Control group.....	53.7	63.1	9.4	17.4
Grade equivalent of comprehension score:				
Experimental group.....	5.4	6.5	1.1	19.2
Control group.....	5.5	6.2	0.7	11.9
Age equivalent of comprehension score (in years and months):				
Experimental group.....	10-5	11-5	1-0	9.6
Control group.....	10-6	11-1	0-7	5.7
Separate Parts of Test				
Vocabulary:				
Experimental group.....	20.5	25.6	5.1	25.0
Control group.....	20.8	23.7	2.9	13.7
Reading for details:				
Experimental group.....	7.1	8.4	1.3	18.7
Control group.....	7.1	8.0	0.9	12.9
Paragraph comprehension:				
Experimental group.....	3.1	3.7	0.6	21.2
Control group.....	3.1	3.6	0.5	18.1

* Computed on the basis of the original test scores.

those in the control group would seem to indicate that speed of reading may be expected to be affected positively by improved habits of reading comprehension. Evidence gathered by the writers from

other experiments with students on the junior high school, senior high school, and college levels confirms the expectation that improvement in reading comprehension will be accompanied by a corresponding improvement in reading rate.

A fact revealed by the individual scores, which are not given here, is that, on all three of the bases (increase in total raw scores on phases of reading included in the experiment, increase in reading-grade level, and increase in reading-age level) used for comparing the im-

TABLE 2
PERCENTAGE OF IMPROVEMENT* MADE BY PUPILS AT
DIFFERENT LEVELS OF ABILITY IN READING
COMPREHENSION

ABILITY GROUP	READING COMPREHENSION		RATE OF READING	
	Experi- mental Group	Control Group	Experi- mental Group	Control Group
Upper half.....	22.6	14.0	1.3	7.2
Lower half.....	42.3	23.9	12.7	-5.5
Highest third.....	21.1	13.6	6.5	5.4
Middle third.....	27.4	20.8	5.9	-4.0
Lowest third.....	53.6	20.8	6.2	4.2

* Computed on the basis of the original test scores.

provement made by the two groups in reading comprehension, the progress made by the experimental group, as a whole, was not only consistently but also conspicuously greater than that made by the control pupils. A further finding of the individual scores is that marked individual differences characterized the progress made by pupils in both groups, both in reading rate and in reading comprehension. Another revelation of the individual scores is that approximately a third of the pupils in both groups made lower scores in rate of reading on the final test than on the initial test. Thirteen experimental pupils lost a total of seventy-five points, and twelve control pupils lost a total of eighty-seven points. This loss in rate may have been due to the fact that the pupils concerned varied enough from their normal reading rate in either test, or in both tests, to influence

the rate score in a negative way. In the case of the experimental pupils, the loss in speed of reading conceivably may be a temporary phenomenon. Such a condition occurs frequently in connection with the acquisition of higher-order habits. It is probably due to the fact that the learner, who formerly was operating on the basis of the older, simpler, and more isolated habits, is now attempting to react in terms of the more complicated higher-order habits which have been recently acquired; consequently it takes time for the individual to gain facility in reacting in terms of his new behavior patterns.

Table 1 also presents data showing the improvement made by the experimental and the control groups on the separate phases of reading comprehension that were measured by the test and included in the remedial program. Analysis of the data shows that the experimental group made a greater gain than did the control group in each of the three phases of comprehension. The difference in gain made by the two groups was greatest in vocabulary and least in paragraph meaning.

Table 2 shows the relative improvement in reading comprehension and in reading rate made by pupils of different levels of comprehension ability. Analysis of Table 2 reveals several interesting facts. First, pupils in the lower classifications in both the experimental and the control groups made the most improvement in reading comprehension. The lower half of each group made significantly greater gain than did the upper half. Likewise, the lowest third of each group made more improvement than did the highest third. Second, the lower half of the experimental group made much more gain in rate of reading than did the upper half. On the other hand, there were no marked differences in the gains made in reading rate by the different comprehension thirds of the experimental group. The upper comprehension half of the control group made a considerable gain in rate of reading, while the lower half suffered a substantial loss. The highest comprehension third of the control group made a slightly greater gain in rate of reading than did the lowest third; the middle third suffered a loss in reading rate. Third, the experimental pupils, regardless of their reading-comprehension classification, consistently made greater gains in comprehension than did the control pupils of like classification. Fourth, all the comprehension thirds of

the experimental group improved more in rate of reading than did the like classifications of the control group.

CONCLUSION

The following statements, which are supported by the data presented above, are made by way of summary and conclusion: (1) Significant improvement in reading ability may be expected from a systematic program in remedial reading based on the results of a careful analysis of the major factors involved in reading comprehension. In the remedial project reported in this article, the pupils in the experimental group made an average improvement of 1.1 school grades in reading comprehension in one semester, while those in the control group progressed only 0.7 of a school grade during the same period. (2) Pupils of all levels of reading ability may be expected to benefit from such training. Although the pupils in the lowest third of the experimental group made the greatest gain in reading comprehension during the course of the project, those in the middle and the highest thirds made marked progress.

ORAL AND WRITTEN EXPRESSION OF NUMBERS OF THREE OR MORE DIGITS

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FOUR hundred fourteen" or "four hundred and fourteen"—which method of reading numbers is correct? Arithmetic textbooks state definitely that numbers should be read in the first form (without the "and"). Not only do the children's textbooks advocate omission of the "and," but the books on the teaching of arithmetic give emphasis to the rule that integral numbers should be read without the use of "and." On the other hand, every person who is a close observer of spoken language form has heard "and" used when numbers are read. The very fact that arithmetic books call special attention to the omission of "and" seems to indicate that the "and" is commonly used. The aim of the study reported in this article was to obtain definite data concerning how people in life outside the school read integral numbers of three digits or more.

CURRENT USAGE IN ORAL NUMERATION

Since radio offered a good means of ascertaining the practices in current use by a great many persons of various occupational groups, a record of practices in radio broadcasts figured prominently as an implementing device in this study. For several months the usage practices in the reading of numbers on many radio programs were recorded. The record included the station, the date, the program, the speaker, the number, and the way the number was read. These data were supplemented by a similarly compiled but less extensive collection culled from classroom lectures, interviews, observations, and conversation.

Of the 230 persons whose practices were studied, 138 (60 per cent) made continual use of "and" in reading numbers of three digits or

more. Among these was included President Roosevelt. Sixty-nine persons, or 30 per cent of the group sampled, were found to omit the "and" in numeration. The remaining 10 per cent were found to be inconsistent in their numeration practices. Part of the time this latter group used "and" in the reading of numbers of three digits or more, and part of the time the "and" was omitted. A brief summary of the findings of the record of oral practices is given in Table 1.

TABLE 1
DISTRIBUTION OF 230 SPEAKERS ACCORDING TO THEIR USE
OF "AND" IN READING NUMBERS

TYPE OF SPEECH	PERSONS USING "AND"		PERSONS OMIT- TING "AND"		PERSONS INCON- SISTENT IN USE OF "AND"		TOTAL	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
Sports comment.	14	82	2	12	1	6	17	100
Interviews and speeches.....	43	73	15	25	1	2	59	100
Miscellaneous...	43	68	15	24	5	8	63	100
Class lectures...	6	43	3	21	5	36	14	100
News.....	29	42	30	43	10	15	69	100
Market news....	3	37	4	50	1	13	8	100
All types....	138	60	69	30	23	10	230	100

CURRENT PRACTICES IN WRITTEN NUMERATION

From the reading done by the writers during the current year, a collection was made of the practices found in the writing of numerical quantities in words. These data were necessarily limited because of the time element, the type of material read, and the typographical practice of writing large numerical quantities in figures rather than in words. The reader's attention should be called to the fact that authorities in English recommend that numerical quantities of three or more digits be written in figures rather than in words.

In this study of the practices used in the writing of numbers of three digits or more, samples were gathered from twenty-six authors, three encyclopedias, and six dictionaries. Fifty-four per cent of the authors whose works were used in this part of the study were found

to use "and" in the writing of integral numbers. About 40 per cent of the authors whose works were used in this study were found to omit the "and" in such instances. The data in this latter group were taken largely from materials written by "teachers of the teaching of arithmetic." About 6 per cent of the authors in this study were found to be inconsistent in this matter. A brief summary of the findings in connection with the use of "and" in writing numbers of three digits or more in words is given in Table 2.

TABLE 2
DISTRIBUTION OF BOOKS, DICTIONARIES, AND ENCYCLOPEDIAS
ACCORDING TO THEIR USE OF "AND" IN
WRITING OUT NUMBERS

TYPE OF PUBLICATION	AUTHORS USING "AND"		AUTHORS OMIT- TING "AND"		AUTHORS INCON- SISTENT IN USE OF "AND"		TOTAL	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
Books, etc.	15	58	9	34	2	8	26	100
Dictionaries.	4	67	2	33	.....	.....	6	100
Encyclopedias. ....	.....	.....	3	100	.....	.....	3	100
All types.	19	54	14	40	2	6	35	100

METHODS OF NUMERATION RECOMMENDED OR SUGGESTED
IN TEXTBOOKS

The methods of numeration advocated by the "teachers of the teaching of arithmetic" were obtained by examining the collection of arithmetic textbooks in the University of Iowa libraries. The copyright dates of these books extended from 1855 to 1941. From these textbooks statements were gathered to show either how numbers of three digits or more should be expressed or what method of numeration was adopted and used by each author.

This survey of the textbooks of the past century depicts the custom of reading numbers with "and" until about 1866. During the next quarter of a century there appears to have been a controversy among the writers of arithmetic textbooks with regard to the best method of numeration. By 1900 all writers seem to have come to an agreement, and since 1900 "and" has been omitted in integral numeration.

The reasons given by the arithmeticians for the change in the manner of reading and writing numbers are both vague and indefinite. The scant explanations given for the omission of the "and" include clarity, brevity, meaning, and correctness or custom.

CONCLUSIONS

The data gathered in the study reported in this article show that the practices in use in the reading and writing of numbers of three digits or more are in direct opposition to the method of numeration advocated by the writers of arithmetic textbooks. Since 1900 the reading and the writing of numbers have been taught, according to the textbooks, without the use of "and" in integral numeration. The "and" has been definitely reserved in arithmetic for the decimal point and for other fractional units of the same order. Furthermore, it appears that the practice which is accepted as correct arithmetically is not in keeping with accepted English usage. Ball seems to express the opinion of many of the English authorities when he says: "The various schoolroom devices employed in the reading and writing of whole or mixed numbers are not for general use and should be avoided."¹

It seems evident either that the practice which the authors of the arithmetic textbooks advocate is not taught or that it is not adaptable to life outside the school.

It was found in this study that the majority of persons today are not using the method of numeration recommended by the arithmeticians. The reading of integral numbers without "and" as advocated by the textbook authors no doubt had its beginning, in the day when books were scarce, as a means of eliminating confusion in the dictation of numbers. The custom, as far as teachers are concerned, became fixed, and "and" has been arithmetically taboo since 1900 both in the reading and in the writing of integral numbers. In actual practice, however, "and" maintains a prominent position.

If the opinion of many language authorities is accepted that language is made by the people and is only fixed by writers and orators, it is doubtful whether teachers are justified in spending classroom time in teaching a terminology that has not stood the test of usage in life outside the school.

¹ Francis Kingsley Ball, *Building with Words*, p. 87. Boston: Ginn & Co., 1926.

FORMAT AND CONTENT OF READERS

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THAT the new readers for primary-school children are becoming more attractive and more visually hygienic, even a cursory examination will reveal. But the content—is it as stimulating as the appearance of the books? A little first-grade girl in the initial stages of learning to read turned a page in her laborious reading of a long, cumulative story to find the beginning of another tale. Puzzled, she turned again to the end of her story and said, “Is that all? So what!” Fortunately such an experience is not typical. The story in the reader has improved, but is it fitted to teach as well as to teach reading? As one way of determining the proximity of the reading content to the child’s world, eleven second and eleven third readers of popular series were examined to find the occupations that were mentioned in them. The names of the readers are given at the end of this article.

NUMBER OF REFERENCES TO OCCUPATIONS

Analysis of twenty-two readers, eleven for second-grade and eleven for third-grade reading level, revealed that a total of 757 references were made to occupations. Of these, 279 references (36.9 per cent) were found in second readers, and 478 references (63.1 per cent) were in third readers.

Table 1 shows the distribution of the 757 references among the occupational groups. It would seem that there are many more references to occupations in the third readers than in the second readers. There is a difference, but it is not so great as it appears to be because there are more pages in the third readers than in the second readers. Of a total of 6,211 pages in the 22 readers, 56.9 per cent are in the third readers. There is almost complete agreement in the rankings of the two lists.

Table 2 presents the list for second and third readers of the workers in business, industry, and domestic service; government service; agriculture; transportation; communication; and professions and arts.

In a review of the business, industrial, and domestic workers, two facts are obvious: (1) Many of the occupations included are obsolete or are important to only a few persons in the modern world. (2) Many common occupations are omitted. The coach-maker, the

TABLE 1
REFERENCES TO OCCUPATIONS IN ELEVEN SECOND
READERS AND IN ELEVEN THIRD READERS

OCCUPATION	SECOND READERS		THIRD READERS	
	Number of References	Percentage of References	Number of References	Percentage of References
Business, industry, and domestic service.....	92	33.0	141	29.5
Government service.....	51	18.3	114	23.9
Agriculture.....	52	18.6	88	18.4
Transportation.....	37	13.3	45	9.4
Communication.....	16	5.7	24	5.0
Professions and arts.....	29	10.4	59	12.3
Miscellaneous.....	2	0.7	7	1.5
Total.....	279	100.0	478	100.0

peddler, the wood-carver, the maker of picture frames, the spinner, the tinner, the magician, the caretaker of the churchyard, and the doorman appear in the stories, but not one salesman, stenographer, or beauty-parlor operator.

Women are given little place in the business and industrial world. With the exception of the household positions of cook, servant, and housekeeper, the only occupations open to women on the second-reader list are street vendor and clerk in a store; and in the third-reader list are street vendor, clerk in a store, milliner, and spinner. Woman's place is still in the home. The third-reader list is heavy with house servants. First on the list is the servant, who is referred to eighteen times in nine books out of eleven. The cook appears twelve times in five books; the housekeeper, twice; and the doorman,

TABLE 2

REFERENCES TO WORKERS IN DIFFERENT OCCUPATIONS APPEARING
IN ELEVEN SECOND READERS AND IN ELEVEN THIRD READERS

SECOND READERS			THIRD READERS		
Kind of Worker	Num- ber of Refer- ences	Num- ber of Books	Kind of Worker	Num- ber of Refer- ences	Num- ber of Books
Business, industrial, and domestic workers:			Business, industrial, and domestic workers:		
Storekeeper.....	13	6	Servant.....	18	9
Milkman.....	8	5	Fisherman.....	18	8
Baker.....	7	4	Store and shop keeper..	17	4
Street vendor.....	7	4	Cook.....	12	5
Grocer.....	7	2	Milkman.....	6	4
Shoemaker.....	6	6	Hunter.....	5	4
Cook.....	6	5	Merchant.....	5	4
Clerk in a store.....	6	1	Street vendor.....	4	4
Indian maker of water jars	3	3	Waiter.....	4	4
Servant.....	2	2	Wood-carver.....	4	4
Tailor.....	2	2	Baker.....	4	3
Baker's boy.....	2	1	Animal-trainer.....	4	2
Blacksmith.....	2	1	Guide.....	4	2
Butcher.....	2	1	Clerk in a store.....	3	3
Coach-maker.....	2	1	Shoemaker.....	3	3
Peddler.....	2	1	Circus man.....	3	2
Restaurant-keeper.....	2	1	Dairyman.....	2	2
Broom-maker, building			Doorman.....	2	2
contractor, carpenter,			Housekeeper.....	2	2
chimney sweep, engine-			Magician.....	2	2
builder, factory worker,			Miller.....	2	2
fisherman, florist, jani-			Trapper.....	2	2
tor, miller, organ-man,			Baker's boy, butcher,		
watchman, workman			caretaker of church-		
(each having one refer-	13	13	yard, grocer's boy,		
ence in one reader)....			hat-maker, innkeeper,		
			inventor, janitor, lum-		
			ber-dealer, lunch-		
			room-keeper, maker of		
			picture frames, mil-		
			liner, spinner, tinner,		
			treasurer (each having		
			one reference in one		
			reader).....	15	15
Total.....	92	.....	Total.....	141	.....
Government workers:			Government workers:		
Nondemocratic (total 23):			Nondemocratic (total 64):		
King.....	11	4	King.....	25	7
Prince.....	5	3	Princess.....	13	5
Queen.....	5	2	Queen.....	8	3
Palace guard, princess			Prince.....	6	3
(each having one refer-			Slave.....	4	2
ence in one reader)	2	2			

TABLE 2—Continued

SECOND READERS			THIRD READERS		
Kind of Worker	Number of References	Number of Books	Kind of Worker	Number of References	Number of Books
Government workers— <i>continued</i> :			Government workers: Nondemocratic— <i>con-</i> <i>tinued</i> :		
			Arab chief.....	3	3
			Royal guard.....	2	2
			Emperor, knight, slave-master (each having one refer- ence in one reader)	3	3
Democratic (total 3):			Democratic (total 11):		
Judge.....	2	2	Governor.....	4	3
President.....	1	1	Indian chief.....	3	3
			President.....	2	2
			Judge, mayor (each having one refer- ence in one reader).	2	2
Other government agents (total 25):			Other government agents (total 39):		
Policeman.....	11	6	Soldier.....	13	6
Fireman.....	7	3	Sailor.....	9	5
Soldier.....	3	3	Policeman.....	7	4
Keeper of zoo.....	2	2	Army captain.....	2	2
Lamplighter, sailor (each having one refer- ence in one reader)	2	2	Army general.....	2	2
			Forest ranger.....	2	1
			Ambassador, fireman, naval officer, traf- fic officer (each hav- ing one reference in one reader).....	4	4
Total.....	51	.....	Total.....	114	.....
Agricultural workers:			Agricultural workers:		
Farmer.....	34	10	Farmer.....	40	11
Herdsmen.....	3	2	Herdsmen.....	18	9
Rancher.....	3	2	Gardener.....	10	5
Cowboy.....	2	2	Cowboy.....	5	3
Woodcutter.....	2	2	Farm laborer.....	4	4
Farm laborer.....	2	1	Woodcutter.....	3	3
Pioneer settler.....	2	1	Rancher.....	2	1
Beeman, cotton-picker, gardener, milkmaid (each having one refer- ence in one reader)....	4	4	Backer, banana-cutter, beeman, nurseryman, plowman, rubber plan- tation head (each hav- ing one reference in one reader).....	6	6
Total.....	52	.....	Total.....	88	.....

TABLE 2—Continued

SECOND READERS			THIRD READERS		
Kind of Worker	Number of References	Number of Books	Kind of Worker	Number of References	Number of Books
Transportation workers:			Transportation workers:		
Air (total 10):			Air (total 4):		
Pilot.....	7	5	Pilot.....	3	3
Airport manager.....	2	2	Caretaker of field....	1	1
Airplane-builder.....	1	1	Land (total 23):		
Land (total 22):			Train ticket agent....	4	3
Engineer.....	4	4	Bus driver.....	2	2
Train conductor.....	4	4	Elevator operator....	2	2
Taxi driver.....	2	2	Engineer.....	2	2
Bus driver.....	2	1	Conductor.....	2	2
Deliveryman.....	2	1	Baggageman, camel		
Truck driver.....	2	1	driver, chauffeur,		
Coachman, filling-sta-			coachman, footman,		
tion attendant, foot-			garageman, motor-		
man, garageman,			man, moving-man,		
railroad-track guard,			pony express rider,		
ticket agent (each			taxi driver, wagon		
having one reference			driver (each having		
in one reader).....	6	6	one reference in one		
Water (total 5):			reader).....	11	11
Ship's captain.....	3	1	Water (total 18):		
Lighthouse keeper, sail-			Sailor.....	9	5
or (each having one			Ship's captain.....	6	5
reference in one read-			Ship's officer, skipper		
er).....	2	2	on ferryboat, toll-		
			bridge keeper (each		
			having one refer-		
			ence in one reader).	3	3
Total.....	37	.....	Total.....	45	.....
Communication workers:			Communication workers:		
Postman.....	7	3	Postman.....	7	4
Rural mailman.....	3	3	Messenger.....	4	2
Auctioneer, mail clerk on			Postmaster.....	2	2
train, messenger, news-			Rural mailman.....	2	2
paperman, paper boy,			Librarian, mail clerk,		
radio entertainer (each			operator in marionette		
having one reference in			show, pony express		
one reader).....	6	6	rider, post-office clerk,		
			Punch and Judy man,		
			radio entertainer, rail-		
			way mail clerk, tele-		
			phone operator (each		
			having one reference		
			in one reader).....	9	9
Total.....	16	.....	Total.....	24	.....

TABLE 2—*Continued*

SECOND READERS			THIRD READERS		
Kind of Worker	Num- ber of Refer- ences	Num- ber of Books	Kind of Worker	Num- ber of Refer- ences	Num- ber of Books
Workers in professions and arts:			Workers in professions and arts:		
Teacher.....	19	6	Teacher.....	26	5
Doctor.....	3	2	Doctor.....	6	5
Nurse.....	3	2	Nurse.....	4	4
School principal.....	2	2	Preacher.....	4	2
Poet, preacher (each hav- ing one reference in one reader).....	2	2	School principal.....	4	2
			Surveyor.....	3	3
			Priest.....	3	2
			Potter.....	2	2
			Artist, author, dancer, dentist, photographer, poet, schoolmaster (each having one refer- ence in one reader).	7	7
Total.....	29	.....	Total.....	59	.....

twice. These four workers are mentioned thirty-four times—24 per cent of the total number of references to business, industrial, and domestic workers. The position of the fisherman, sharing first place on the list, is surprising. The lack of any agreement in rank on the two lists would seem to indicate that the worker was introduced for no reason except the purely literary one that he just happened to be in the story.

The group of references next in number to the business, industrial, and domestic workers is that of governmentally employed persons. This group constitutes approximately a fifth of the total number of references in both the second readers and the third readers.

It is interesting to note the strong nondemocratic trend in the data presented in the list of government workers. Royalty is very often mentioned. The king stands first, both as to number of references and as to the number of books in which he appears, on the third-reader list. On the second-reader list, the king and the policeman stand at the head of the list, with eleven references each. The policeman, however, is a character in six of the books and the king in four.

In the twenty-two books analyzed there are thirty-six references to a king and three to the president of the United States. In the second readers the king, queen, prince, and princess tally twenty-two references, and in the third readers the king, princess, queen, prince, and emperor total fifty-three references, so that in the twenty-two books examined the members of royalty constitute 45.5 per cent of all references to governmental personages. Including the mayor, who may or may not have been democratically chosen in olden times, the democratic terms in the two sets of readers number fourteen, as against the eighty-seven nondemocratic designations. Who can say that this reiterance of the nondemocratic and neglect of the democratic has no influence on a child at the third-grade level?

Among "Other government agents," on both second- and third-reader lists, the policeman and the soldier rank among the first three.

Ranking third as to frequency of mention is the group of agricultural workers. Those of both second and third readers constitute 18.5 per cent of all references to occupations in the twenty-two books analyzed. The farmer is mentioned seventy-four times, much more often than any other one worker. His runner-up is the teacher who appears forty-five times. Next is the king, whose name recurs thirty-six times. It is interesting to note that the farmer, herdsman, cowboy, woodcutter, and farm laborer maintain ranks the same or differing by not more than one place in the two lists, and all are at or above the median rank.

The workers mentioned in occupations that carry on air, land, and water transportation number eighty-two, or 10.8 per cent of the total number of employed persons mentioned in the twenty-two books examined.

What material is presented on transportation? The automobile is important in the life of the child as a means of transportation; yet the garageman is mentioned twice, while there are twenty-three references to workers having to do with water transportation. The filling-station attendant is mentioned once, and the conductor on the train is mentioned six times.

In the twenty-two books examined, the popular character in communication is the mail-carrier. There are nineteen references to him, which amount to 47.5 per cent of all the references to communication

workers. The post-office employees are prominent. Eleven of the sixteen communication workers of the second-reader list are from the postal service. Some other branches of communication familiar to the child and important in his life are slighted. The telephone operator is mentioned once in one third reader, the librarian once in a third reader, the paper boy once in a second reader, and the radio entertainer once in a third and once in a second reader.

It is interesting, in reviewing the section of Table 2 on workers in the professions and arts, to note that in both second- and third-reader lists, the same relative positions are maintained by the teacher, the doctor, the nurse, and the school principal, and with about the same comparative frequency, for the third readers have 33 per cent more pages than the second readers. The teacher ranks first on both lists as to number of references as well as to number of books containing those references. The sum of the teacher characters constitutes 51.1 per cent of the total of the references to professional workers and artists. The teacher's rank, however, is elevated by one second reader which names this occupation five times, and one third reader which mentions it twelve times. The other professional workers mentioned are distributed throughout the readers. The doctor, second on lists for readers of both second- and third-grade levels, appears nine times in seven books; the nurse is mentioned seven times in six books; and the school principal, six times in four books.

There remain nine references to workers not classifiable under the groups presented. In the second readers the explorer is named once and the guide once; in the third readers the beggar, the explorer, and the robber are each named twice in two books, and the friar is named once.

The world today is more "full of a number of things" than it was in Robert Louis Stevenson's day, more of a "blooming, buzzing confusion"¹ than it was in the time of William James. What help can the child derive in orientation to his world from the reading matter of his readers? Harold F. Clark has made some good suggestions about the fields from which reading content for children should be drawn. He says: "The amount of information which an intelligent citizen today

¹ William James, *The Principles of Psychology*, I, 488. New York: Henry Holt & Co., 1890.

must have is so enormous that much socially valuable material should be used from the very first grades."¹ Carefully designed subject matter dealing with health work, life's necessities, and leisure must be made available for each grade area. Ethel Mabie Falk's sympathetic discussion of "Concerns of the Elementary School Child"² should open up virgin soil to be tilled by writers of factual material for children.

Much effective work has been done by publishers of children's readers in the past twenty years. However, the facts revealed by this study indicate that much remains to be done. Granted that it is easier to judge the concrete aspects of a thing than its abstract qualities, still which is the important thing—format and vocabulary or the concepts presented? Our grandparents are still grateful for the treasures of literature brought to them by *McGuffey's Readers*. In our day it would almost seem, in some cases, that a reader is to be judged as a piece of typographical and pictorial art. In view of the power derived by the Soviet Union and the Nazi Youth leaders through the use of children's reading material, we cannot afford to disregard this medium. One aspect of choosing children's readers should be the evaluation of the content from a presentation which is oral or in mimeographed form before the makeup of the book is judged. Let us give to the value of the concepts presented a consideration at least equal to that given to the format.

CONCLUSIONS

(1) Second and third readers contain many references to occupations. In the twenty-two books examined, 757 workers are named. (2) The lists of business and industrial workers and also of workers in communication and transportation bear little relation to the life of the child, either as to personnel or as to importance as judged by repetition. (3) The list of persons in governmental positions is marked-

¹ Harold F. Clark, "The Learning of Subject Matter," *Teachers College Record*, XLI (November, 1939), 103.

² "Concerns of the Elementary School Child," *Family Living and Our Schools*, pp. 97-112. The Joint Committee on Curriculum Aspects of Education for Home and Family Living of the Home Economics Department of the National Education Association and the Society for Curriculum Study, Bess Goodykoontz and Beulah I. Coon, co-chairmen. New York: D. Appleton-Century Co., Inc., 1941.

ly nondemocratic, both in the number of different royal ranks and royal attendants named and in the recurrence of those names. (4) The professional persons and artists named are familiar to the child, but few in number. (5) Much of the reading material included in children's readers is too far removed from the life of the child to be of maximum value to the child's development.

READERS ANALYZED

1. BAKER, CLARA BELLE; REED, MARY MAUD; and BAKER, EDNA DEAN. The Curriculum Readers: *Friends Here and Away* and *Friends around the World*. Indianapolis, Indiana: Bobbs-Merrill Co., 1934.
2. DOPP, KATHARINE E., PITTS, MAY, and GARRISON, S. C. Happy Road to Reading: *Outdoors and In* and *Now and Long Ago*. Chicago: Rand McNally & Co., 1935.
3. ELSON, WILLIAM H., and GRAY, WILLIAM S. *The Elson Basic Readers*, Books II and III. Chicago: Scott, Foresman & Co., 1931.
4. ENGLISH, MILDRED, and ALEXANDER, THOMAS. Happy Hour Readers: *Wheels and Wings* and *Wide Windows*. Richmond, Virginia: Johnson Publishing Co., 1935.
5. GATES, ARTHUR I., HUBER, MIRIAM BLANTON, and PEARDON, CELESTE COMEGYS. The New Work-Play Books: *We Grow Up* and *Wide Wings*. New York: Macmillan Co., 1939.
6. GRADY, WILLIAM E., KLAPPER, PAUL, and GIFFORD, J. C. Childhood Readers: *Stories for Every Day* and *Children Near and Far*. New York: Charles Scribner's Sons, 1932.
7. HARDY, ROSE LEES, and HECOX, GENEVA J. Good Companions: *Comrades and Neighbors*. New York: Newson & Co., 1931.
8. LEAVELL, ULLIN W., BRECKINRIDGE, ELIZABETH G., BROWNING, MARY, and FOLLIS, HATTIE. The Friendly Hour: *Indoors and Out* and *Friends To Know*. New York: American Book Co., 1936.
9. O'DONNELL, MABEL, and CAREY, ALICE. The Alice and Jerry Books, Reading Foundation Series: *Friendly Village* and *If I Were Going*. Evanston, Illinois: Row, Peterson & Co., 1936.
10. PENNELL, MARY E., and CUSACK, ALICE M. *The Children's Own Readers*, Books II and III. Boston: Ginn & Co., 1929.
11. SMITH, NILA BANTON. The Unit-Activity Reading Series: *Round about You* and *Near and Far*. New York: Silver Burdett Co., 1935.

SELECTED REFERENCES ON ELEMENTARY- SCHOOL INSTRUCTION

II. THE SUBJECT FIELDS



THIS list of references is the second in a series of three lists relating to instruction at the elementary-school level. The preceding list, appearing in the September number of the *Elementary School Journal*, contains items on the curriculum, methods of teaching and study, and supervision. The present list and the next list in the series include references on these same major aspects of instruction, but the items are grouped by subject fields.

READING¹

WILLIAM S. GRAY
University of Chicago

487. ADDY, MARTHA L. "Development of a Meaning Vocabulary in the Intermediate Grades," *Elementary English Review*, XVIII (January, 1941), 22-26, 30.

Summarizes the responses from 250 elementary schools in teachers' colleges concerning selection of words for vocabulary development, techniques of teaching word meanings, and types of lessons to fix meanings.

488. ANDERSON, IRVING H. "The Ophthalm-o-graph and Metron-o-scope Evaluated in the Light of Recent Research on the Psychology of Reading," *Teachers College Journal*, XII (January, 1941), 60-63. (Terre Haute, Indiana: Indiana State Teachers College.)

Summarizes evidences from various studies concerning the validity and the reliability of the ophthalmograph and the metronoscope.

¹ This list of references does not include articles and books pertaining specifically to reading in the primary grades. Such references are included in the list provided by Katherine McLaughlin which appears in the April, 1941, issue of the *Elementary School Journal*.

See also Item 189 (Dolch) in the list of selected references appearing in the April, 1941, number of the *Elementary School Journal* and Item 212 (*Meeting Special Needs of the Individual Child*) in the same number which contains the following article of importance for reading: Arthur I. Gates, "Correcting the Reading Difficulties of Children in Grades III to VIII," pp. 466-73.

489. BELSER, DANYLU, and BELSER, BIRDIE A. "Easy Books for the Intermediate Grades," *Elementary English Review*, XVII (October and November, 1940), 235-39, 285-89.
Presents a list of books of interest to pupils whose reading ability is below the level of their general maturity; describes the nature of the content and includes a short paragraph illustrating its level of difficulty.
490. BERWALD, ROSE. "Learning To Use the Newspaper," *Elementary English Review*, XVII (November, 1940), 257-61, 284.
Discusses the place of newspaper reading in elementary schools and outlines a suggested program for its use.
491. BETTS, EMMETT A. "Reversals in Reading," *Visual Digest*, IV (June-July-August, 1940), 38-45.
Describes types of reversal errors, associated behavior, possible causes, and remedial techniques.
492. BETTS, EMMETT A. "The Correction of Reading Difficulties," *Visual Digest*, IV (September-October-November), 40-45; (December, 1940-January-February, 1941), 38-44; (March-April-May, 1941), 39-44.
Considers methods of organizing instruction to meet individual needs, ways of enlisting effort, kinds of materials needed, appropriate teaching procedures, and the significance of rapport.
493. BETTS, EMMETT A. "Bases for Effective Reading Instruction," *Educational Administration and Supervision*, XXVI (December, 1940), 679-85.
Deals with the factors that should be considered in analyzing and treating serious reading disabilities.
494. BRADLEY, MARTHA H., CAHILL, LORETTA A., and TATE, HARRY L. "Acquisition of a Reading Vocabulary," *Elementary English Review*, XVIII (January, 1941), 19-21, 32.
Summarizes the results of controlled experiments in the fifth and eighth grades to determine the effect on vocabulary building of (1) clarifying the meanings of words and (2) using words in oral sentences.
495. BROENING, ANGELA M. "The Role of the Teacher of Reading in a Democracy," *Baltimore Bulletin of Education*, XVIII (November-December, 1940), 109-13.
Describes in very impressive terms the specific functions of teachers in the reading programs.
496. BROOM, M. E. "A Study of Race and Sex Differences in Reading Comprehension," *Journal of Educational Research*, XXXIV (April, 1941), 587-93.
Analyzes and interprets reading-test scores obtained from 9,276 pupils in Grades V-VIII to determine the need for different curriculums and for teaching methods to provide for race and sex differences in reading comprehension.

497. COFFING, ESTHER A. "The Relationship between Silent Reading Ability and Arithmetical Ability," *School Science and Mathematics*, XLI (January, 1941), 10-14.
Presents conclusions based on scores of 355 pupils in Grades IV B to VIII A on the Paragraph Meaning and the Arithmetic Reasoning sections of the New Stanford Achievement Test.
498. DEARBORN, WALTER F. "On the Possible Relations of Visual Fatigue to Reading Disabilities," *School and Society*, LII (November 23, 1940), 532-36.
Reviews evidence from various sources supporting the assumption that visual fatigue is an important factor in reading disability.
499. FEINBERG, HENRY, and REED, CLYDE L. "Reading Level of a Group of Socially Maladjusted Boys," *Journal of Social Psychology*, XII (August, 1940), 31-38.
Presents the results, including intercorrelations, of a study of the reading achievement and related factors of 143 maladjusted boys.
500. FRIDIANA, SISTER M. "Achievement in Silent Reading in an Elementary School," *Journal of Educational Research*, XXXIV (April, 1941), 594-600.
Analyzes the results of silent-reading tests in Grades I-VIII to demonstrate the necessity of better individualized instruction and to enlist community co-operation in securing reading materials of varying difficulty.
501. GAINES, FRANCES PERLOWSKI. "Interrelations of Speech and Reading Disabilities," *Elementary School Journal*, XLI (April, 1941), 605-13.
Summarizes the findings from thirteen studies of the relation of speech difficulties to reading disabilities.
502. GOODLETT, CARLTON B., and CALLOWAY, ANDREW H. *The Reading Abilities of the Negro Elementary School Child in Kanawha County, West Virginia*. West Virginia State College, Department of Education, Contribution No. 10. Institute, West Virginia: West Virginia State College, 1940. Pp. 48.
Presents the results of a survey of 480 pupils in Grades II-VI in 30 Negro elementary schools to determine their achievements and needs in silent reading.
503. GRAY, WILLIAM S. "Needed Emphases in the Teaching of Reading To Prepare for Intelligent Participation in Democracy," *National Elementary Principal*, XX (October, 1940), 7-9.
Discusses the urgent need for improved reading habits, analyzes characteristics of an efficient reader, and suggests types of training which he needs.
504. HESTER, KATHLEEN B., and LIVINGSTON, FLOY E. "The Remedial-Reading Program in the Mount Lebanon Public Schools," *Elementary School Journal*, XLI (December, 1940), 277-82.

- Discusses the procedures adopted in providing for pupils, in Grades II-VI, inclusive, of adequate intelligence who have not learned to read.
505. HILDRETH, GERTRUDE. "Individualizing Reading Instruction," *Teachers College Record*, XLII (November, 1940), 123-37.
- Describes methods reported by twenty-two experienced teachers in their attempts to individualize reading instruction in Grades I-VIII in various public and private schools.
506. HILL, GEORGE E., and TRENT, M. ESTELLE. "Children's Interests in Comic Strips," *Journal of Educational Research*, XXXIV (September, 1940), 30-36.
- Summarizes the responses of 256 pupils in Grades IV-VI, inclusive, on a check list of comic strips and to a thirty-item multiple-choice test relating to popular comic strips.
507. HOGAN, MARITA, and YESCHKO, MARGARET. "Latin American Countries in Children's Literature," *Elementary English Review*, XVII (October and November, 1940), 230-34, 256; 276-84.
- Includes an annotated bibliography of fiction, nonfiction, folklore, and fantastic tales for intermediate- and upper-grade pupils.
508. KIRBY, BYRON C. "The Return of Oral Reading," *Journal of Education* (Boston), CXXIV (February, 1941), 58-60.
- Summarizes replies from seventeen elementary schools in 1940 concerning the proportion of the time used for basic instruction in reading that should be devoted to oral reading.
509. LEARY, BERNICE E. "Adjusting Books to Children's Interests," *Ohio Schools*, XIX (April, 1941), 150-51, 182-84.
- Outlines reasons for concern because such a small percentage of our population are book readers and discusses the threefold nature of the problem involved in promoting reading interests.
510. MCKEE, PAUL. "The Problem of Meaning in Reading," *English Journal*, XXX (March, 1941), 219-24.
- Reports the results of informal studies to determine how well children understand what they read and suggests means of helping them improve in ability to interpret meaning.
511. MADDEN, MABLE, and PRATT, MARJORIE. "An Oral Reading Survey as a Teaching Aid," *Elementary English Review*, XVIII (April, 1941), 122-26, 159.
- Reports the results of oral-reading tests, based on passages from social-studies and science textbooks, given to 591 pupils in Grades III-VI and to 563 pupils in Grades VII-IX to determine mechanical factors responsible for poor reading.

512. NEWMAYER, S. WEIR, M.D. *First Aids in Reading Difficulties*. Philadelphia: North American Printing Co., 1940. Pp. xiv+162.

Emphasizes the visual aspects of reading, describes the significance to reading of various visual functions and defects, and suggests therapeutic and training procedures to accompany instruction in reading.

513. PHELAN, SISTER MARY BENEDICT, B.V.M. *Visual Perception in Relation to Variance in Reading and Spelling*. Catholic University of America Educational Research Monographs, Vol. XII, No. 3. Washington: Catholic Education Press, 1940. Pp. 48.

Reports the results of a comparative study of the results of tests administered to 460 fourth- and fifth-grade pupils that purport to measure perceptual, cognitive, memory, reading, and spelling ability.

514. PHIPPS, WILLIAM RODGERS. *An Experimental Study in Developing History Reading Ability with Sixth Grade Children through Development of History Vocabulary*. Johns Hopkins University Studies in Education, No. 28. Baltimore: Johns Hopkins Press, 1940. Pp. xii+74.

Presents the results of a controlled experiment with groups of sixth-grade pupils "to improve the reading of history material by developing facility in the use of the language of history."

515. SANDERSON, MARION. "An Experiment in the Development of Meaning Vocabularies," *Studies and Summaries*, pp. 31-35. Prepared by Hugh S. Bonar. Manitowoc, Wisconsin: Manitowoc Public Schools, 1941.

Presents the results of an experiment with fifth-grade pupils, ranging in intelligence quotients from 77 to 121, to determine the effect, as measured by a vocabulary power test, of direct instruction on selected lists of words.

516. SOUTHALL, HILDA. "Organization of Remedial Reading in the Classroom," *Elementary English Review*, XVIII (April, 1941), 127-32.

Discusses steps essential in conducting a remedial program in both work-type and recreatory reading.

517. THORNDIKE, ROBERT L. *Children's Reading Interests*. New York: Teachers College, Columbia University, 1941. Pp. vi+48.

Presents the results of a study of reading interests among children in Grades IV-XII, inclusive, through the use of a questionnaire relating to fictitious titles.

518. ZIRBES, LAURA. "What Is a Modern Reading Program?" *Educational Method*, XX (December, 1940), 151-55.

Presents seven characteristics that differentiate a modern program of reading from an outworn pattern of reading instruction.

ENGLISH*

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519. ABNEY, LOUISE. "Better Speech for Every Child," *Childhood Education*, XVII (February, 1941), 272-75, 286.

Discusses general problems of speech training in the elementary school, including standards and choric speech.

520. BROWN, DOROTHY LOTHROP, and BUTTERFIELD, MARGUERITE. *The Teaching of Language in the Primary Grades*. New York: Macmillan Co., 1941. Pp. 236.

Relates language to the total program of the school without forgetting its importance in the creative phases of individual living. Practical and specific for the beginning teacher.

521. CLARK, WESTON R. "Radio Listening Habits of Children," *Journal of Social Psychology*, XII (August, 1940), 131-49.

Analyzes the radio programs listened to during one week by children from nine to eighteen years of age in Washington, D.C., and in the District of Columbia. Discusses the relation of the programs to sex, rural-urban location, grade, age, intelligence, and parental interference in listening habits.

522. EDMAN, MARION. Bulletins of the Language Education Department of the Detroit Public Schools, 1940-1941: File No. 1228, "The Teaching of Poetry in the Elementary School," pp. 22; File No. 1239, "The Use of Core Materials in the Teaching of Literature," pp. 9; File No. 1240, "General Principles for the Teaching of Literature in the Elementary School," pp. 29; File No. 1282, "The Use of Reading Materials in an Enriched Literature Program," pp. 17; Bulletin No. 300, *Basic Principles in the Teaching of Composition*, pp. 24; Bulletin No. 301, *Techniques Applicable to the Teaching of Composition in Upper Grades*, pp. 24; Bulletin No. 302, *Group Composition in the Elementary School*, pp. 22; Bulletin No. 303, *The Teaching of Oral Composition*, pp. 30. Detroit, Michigan: Public Schools, 1940 and 1941.

* See also Item 188 (Cole) in the list of selected references appearing in the April, 1941, number of the *Elementary School Journal*, Items 432 (Bobbitt) and 436 (*Family Living and Our Schools*) in the September, 1941, number of the same journal; and Item 374 (Merry and Merry) in the May, 1941, number, and Item 494 (*The Report of a Survey of the Public Schools of Pittsburgh, Pennsylvania*) in the September, 1941, number of the *School Review*. Item 451 (Lane) in the September, 1941, number of the *Elementary School Journal* contains the following chapter on English: "The Language Arts—Form and Substance," pp. 229-66. Items 490 (Berwald) and 506 (Hill and Trent) in the current list on reading contain discussions of importance for English.

These bulletins present suggestive discussion of objectives, criteria for selection of materials, methods, standards of evaluation, and bibliographies for teachers in elementary schools, with emphasis on practical application in the average classroom of recent trends and available research.

523. *English: A Handbook for Teachers in Elementary Schools*. University of the State of New York Bulletin No. 1194. Albany, New York: University of the State of New York Press, 1940. Pp. 286.

Develops an invaluable course of study in English based on a sound philosophy of the place of language and literature in school programs as a whole, and presents a wealth of methods and materials for teachers in the elementary school.

524. *English Teaching in the Southwest*. Compiled for the Committee on Modern Languages of the American Council on Education by Algernon Coleman, with the co-operation of Clara Breslove King. Washington: American Council on Education, 1940. Pp. xviii+308.

Reports on problems, curriculum, and methods of teaching English to Spanish-speaking pupils in four Southwestern states and in outlying areas.

525. EPSTEIN, JACOB, and KRIEGER, KATHRYN. "Planning Suitable Curriculum Materials for Gifted Children," *Baltimore Bulletin of Education*, XVIII (September-October, 1940), 17-21.

Outlines a program of core and enrichment activities carried on in two elementary schools of Baltimore.

526. FALK, ETHEL MABIE. "Letters To Enrich Children's Experience," *Elementary English Review*, XVIII (March, 1941), 77-82, 112.

Makes a plea for the importance of letter-writing in the elementary school with recognition of motive, reality, and imagination throughout the program.

527. FEREBEE, JUNE D., and JACKSON, DORIS C. "Working with Children in Creative Writing," *Childhood Education*, XVII (February, 1941), 258-62.

Offers practical examples of how to stimulate creative writing for the good of the shy, the aggressive, and the sensitive child.

528. FISHER, CAROLINE E., and ROBERTSON, HAZEL G. *Children and the Theater*. Stanford University, California: Stanford University Press, 1940. Pp. xiv+192.

Describes significant educational values and practical problems of the development of a children's theater in Palo Alto, California.

529. FOSTER, R. A., and HAMPEL, MARGARET. "Unpublished Studies in Elementary School English, 1940," *Elementary English Review*, XVII (March, 1940), 117-22; (May, 1940), 194-98; (October, 1940), 240-45; (November, 1940), 290-92.

Lists, with some comment, the chief unpublished studies in elementary-school English completed during 1940.

530. FREED, CONRAD W. "Silent Conditioning in the Schools," *Quarterly Journal of Speech*, XXVII (April, 1941), 188-94.
Urges recognition of oral language in preparation for a world of oral activity and cites evidence of its superior effectiveness to silent methods.
531. FRIES, CHARLES C., and TRAVER, ALICE A. *English Word Lists*. Prepared for the Committee on Modern Languages. Washington: American Council on Education, 1940. Pp. 110.
Considers recognized word lists in relation to their usefulness in establishing a simple and necessary vocabulary for the teaching of English.
532. GREENE, HARRY A. "English—Language, Grammar, and Composition," *Encyclopedia of Educational Research*, pp. 446-61. Edited by Walter S. Monroe. New York: Macmillan Co., 1941.
Summarizes the major research in the objectives, materials, and methods of teaching language, grammar, and composition in English classes today.
533. HARRISON, M. LUCILLE. "Need for an Adequate Oral Language Program," *Elementary English Review*, XVIII (March, 1941), 99-102.
Presents an extremely significant discussion of language growth and experience outside school and of the obstacles to continued growth during the primary grades.
534. JOHNSON, WILLIAM H. "Meeting Language Needs in Chicago Schools," *Chicago Schools Journal*, XXII (November-December, 1940), 49-56.
Presents a comprehensive statement of the philosophy, the environment, and the activities of the language program from kindergarten through college in the public schools of Chicago.
535. MCCARTHY, DOROTHEA. "Child Development—VIII. Language," *Encyclopedia of Educational Research*, pp. 152-57. Edited by Walter S. Monroe. New York: Macmillan Co., 1941.
Summarizes research in language development in young children with respect to stages of growth, length and structure of sentences, functions of language, sex differences, environmental influences, intelligence, and motor and social development.
536. NATIONAL COLLEGE OF EDUCATION, MEMBERS OF THE STAFF. *Curriculum Records of the Children's School, National College of Education*. Evanston, Illinois: Bureau of Publications, National College of Education, 1940. Pp. xii+606.
Describes concretely units of work involving use of language and reading in the kindergarten through the sixth grade, with specific reference to materials and methods of evaluation in literature, dramatic play, and language.
537. O'BRIEN, MAE. "I Listen to Children: A Study of the Use of a Literature Radio Series in a Fifth Grade," *Teachers College Record*, XLII (April, 1941), 619-34.

Analyzes a recorded discussion of a radio performance of "Robin Hood" with a summarization of comments and an account of further activities stimulated by it.

538. RAGSDALE, CLARENCE E. "Language Development in Childhood," *Child Psychology*, pp. 129-53. Edited by Charles E. Skinner and Philip Lawrence Harriman. New York: Macmillan Co., 1941.
Summarizes research on the early development of language in children, the common disabilities encountered, the problems of vocabulary, and the relation of language to other phenomena of growth.
539. REID, SEERLEY. "Reading, Writing, and Radio: A Study of Five School Broadcasts in Literature," *Journal of Applied Psychology*, XXIV (December, 1940), 703-13.
Demonstrates the difficulty of controlling factors in measuring the effect of five radio broadcasts on the amount and the kind of reading and writing done by seventh- and eighth-grade pupils in the Chicago public schools.
540. RICE, JEANNETTE E. "Presenting English Lessons by Radio," *Elementary English Review*, XVIII (February and March, 1941), 35-41, 51; 106-110.
Outlines a useful series of radio lessons in language for Grades IV-VI which were developed in the public schools of Cleveland, Ohio.
541. RISDEN, GLADYS A. "Aesthetic Experience in Childhood," *Child Psychology*, pp. 299-324. Edited by Charles E. Skinner and Philip Lawrence Harriman. New York: Macmillan Co., 1941.
Analyzes the possibilities for enrichment of personal living through aesthetic experiences in creative expression in the arts, languages, and the motion picture by means of "seeing, saying, and choosing."
542. ROBERTS, BERTHA E. "Thinking, Writing, Growing," *Elementary English Review*, XVIII (January, 1941), 13-16, 28, 30.
Presents an analysis of the voluntary writing of children in Grades II-VIII in the public schools of San Francisco in order to demonstrate elements of growth in language power revealed in it.
543. SANDERSON, VIRGINIA S. "Facing the Problems of Speech Handicaps," *Childhood Education*, XVII (February, 1941), 267-71.
Affords practical help for teachers in dealing with baby talk, lisping, and stuttering.
544. *Santa Barbara County Units of Study for Teachers in Elementary Schools*, Vol. I. Santa Barbara, California: Schauer Printing Studio, Inc., 1940. Pp. 424.
Presents a detailed outline of units for children from six to fourteen years of age, with lists of materials showing the relation of language and reading to the core curriculum.
545. SMITH, DORA V. *Evaluating Instruction in English in the Elementary Schools of New York*. Edited by C. C. Certain. A Report of the Regents' In-

quiry into the Character and Cost of Public Education in New York State. Eighth Research Bulletin of the National Conference on Research in English. Chicago: Scott, Foresman & Co., 1941. Pp. 96.

Recounts in detail the methods and the results of the Regents' Inquiry into achievement and habits in reading and expression, radio listening, and attendance at motion pictures. Reports courses of study in use, classroom procedures in vogue, textbooks and materials furnished, effects of the Regents' examinations, and relations of the program to teacher-training and to supervision of English.

546. SMITH, MABEL. "America Is ——," *Childhood Education*, XVII (April, 1941), 360-64.

Reports a creative-writing project in which children's feelings for America are impressively and imaginatively recorded in a group poem.

547. WITTY, PAUL. "Motivating Creative Expression through Composition," *Educational Method*, XX (December, 1940), 138-43.

Expresses a philosophy of personality development through composition with illustrations from pupils in the Psycho-educational clinic at Northwestern University as well as from sources in print.

548. WYATT, GERTRUDE L. "Language Behavior in Childhood," *Educational Method*, XX (November, 1940), 80-87.

Discusses in semitechnical fashion the relation of language development to physical defects and to traits of personality.

SPELLING¹

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549. BIXLER, HAROLD H. *Standard Elementary Spelling Scale*. Atlanta, Georgia: Turner E. Smith & Co., 1940. Pp. 116.

Presents a spelling scale composed of 3,679 words, designed to be used both as a textbook and as a source of test material. The first purpose is facilitated by the starring of the most commonly used words; the second, by the difficulty values in terms of percentages of correct spelling. The adoption of difficulty as the basis of gradation for instructional purposes rests on a questionable assumption.

550. BLAIR, GLENN M. "An Experiment in Vocabulary Building," *Journal of Higher Education*, XII (February, 1941), 99-101.

Shows experimentally that college students enlarged their vocabularies by recording unfamiliar words encountered in reading and by consulting a dictionary for meanings.

¹ See also Item 549 (Wheeler) in the list of selected references appearing in the October, 1940, number of the *Elementary School Journal*. Item 533 (Harrison) in the current list on English contains a discussion of importance for spelling.

551. COLE, LUELLA. *The Teacher's Handbook of Technical Vocabulary*. Bloomington, Illinois: Public School Publishing Co., 1940. Pp. 124+12.
Organizes the results of research, including the author's own, on the technical vocabularies of school subjects and compares the vocabularies presented with Thorndike's general reading vocabulary of 20,000 words.
552. CONRAD, LAWRENCE H. "Intensive Vocabulary Study," *English Journal*, XXIX (December, 1940), 794-99.
Describes a method for the intensive study of word meanings in the spirit of modern semantics.
553. GALE, ANN. "Teaching Spelling—with Handmade Lantern Slides," *Educational Screen*, XX (February, 1941), 65.
Shows how troublesome words may be presented on lantern slides, often illustrated by pictures, and how presentation and withdrawal of words may be regulated to suit the demands of practice.
554. GANSL, IRENE, and GARRETT, H. E. *Columbia Vocabulary Test*. New York: Psychological Corp., 1939.
A sentence-type test designed to measure the extent of English vocabulary of elementary-school pupils. It contains a hundred items and requires selection of the correct word in a multiple-choice situation. It is standardized and adapted for machine scoring.
555. HACKMAN, ROY B., and DUEL, HENRY W. "Do High-School Students Who Study a Foreign Language Acquire Larger Vocabularies, Spell Their Words More Correctly and Use Better English than High-School Students Who Study No Foreign Language?" *Journal of the American Association of Collegiate Registrars*, XVI (January, 1941), 155-62.
Concludes, on the basis of an experimental investigation, that the study of a foreign language in high school apparently has no bearing on gains in English vocabulary or in spelling.
556. HORN, ERNEST, and SPENCER, PETER L. "Spelling," *Review of Educational Research*, X (April, 1940), 149-51, 173-74.
Summarizes the content of nineteen reports that appeared during the triennium ending October, 1939. Includes a bibliography.
557. JENKINS, MARY WALRATH. "Using the Dictionary in the Teaching of Spelling," *School Review*, XLIX (January, 1941), 14-15.
Consists of a report of a teacher who conducts her business-spelling classes with "word consciousness" as the major objective and the dictionary as the textbook.
558. LOVELL, GEORGE D. "Interrelations of Vocabulary Skills: Commonest versus Multiple Meanings," *Journal of Educational Psychology*, XXXII (January, 1941), 67-72.

Concludes that richness of vocabulary or knowledge of multiple meanings of words is closely related to knowledge of a simple, common meaning.

559. PEAKE, NELLIE L. "Relation between Spelling Ability and Reading Ability," *Journal of Experimental Education*, IX (December, 1940), 192-93.
Finds a positive correlation of 0.81 between ability to spell and knowledge of word meaning.
560. ROBINSON, FRANCIS P. "Misspellers Are Intelligent," *Educational Research Bulletin*, XIX (October 23, 1940), 436-42.
Emphasizes the importance of "teaching in terms of the dynamics within the learning process." Urges that rational as well as mechanical processes be considered as a foundation for instruction in spelling.
561. SMITH, HENRY LESTER, and EATON, MERRILL T. *A Study of the English Usage, Spelling, and Vocabulary of 251 Graduate Students at Indiana University*. Bulletin of the School of Education, Indiana University, Vol. XVI, No. 5. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University, 1940. Pp. 1-68.
Finds a group of 251 graduate students in education below the norms of college Seniors in English usage and spelling and above the norm of college Seniors in vocabulary.
562. SMITH, MADORAH E. "A Comparison of the English Vocabulary Used by Children of Non-American Ancestry in Hawaii before They Reach the Age of Seven Years with That of Kindergarten Children in Continental United States," *Journal of Experimental Education*, IX (December, 1940), 121-32.
Compares 2,123 different words found in 142,574 running English words tabulated from the speech of preschool children of non-American ancestry in Hawaii with the International Kindergarten Union list.
563. SPACHE, GEORGE. "Characteristic Errors of Good and Poor Spellers," *Journal of Educational Research*, XXXIV (November, 1940), 182-89.
Concludes that good spellers are superior to poor spellers in auditory discrimination, in the association of symbols with sounds, and in the phonetic translation of sounds into symbols. The results are consistent with theoretic expectations, for the functions mentioned are all intellectual.
564. TINKER, MILES A., HACKNER, FLORENCE, and WESLEY, MARION W. "Speed and Quality of Association as a Measure of Vocabulary Knowledge," *Journal of Educational Psychology*, XXXI (November, 1940), 575-82.
Concludes "that the free-association technique may be employed to measure specific vocabulary knowledge."

HANDWRITING

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565. BEALE, BEULAH P. "Individualizing Instruction in Handwriting," *Baltimore Bulletin of Education*, XVIII (May-June, 1941), 225-28.

Describes the Baltimore plan of handwriting instruction developed from analytical studies of frequently recurring errors.

566. DUFFY, NONA KEEN. "Manuscript Writing," *Sierra Educational News*, XXXVI (October, 1940), 18-21.

Explains advantages of manuscript writing, provides specific suggestions for practice exercises, and discusses the problem of the time and the method of changing to cursive writing.

567. DUFFY, NONA KEEN. "Left-handed Writing," *Sierra Educational News*, XXXVII (April, 1941), 28-29.

Presents suggestions for supervising writing practice of left-handed pupils with a view to preventing the development of unfavorable writing habits.

568. FREEMAN, FRANK N. *Solving Handwriting Needs as We See Them Today*. Columbus, Ohio: Zaner-Bloser Co. Pp. 36.

An authoritative discussion of three problems in the teaching of handwriting: (1) what to do about the left-handed child, (2) the use of manuscript writing and the transition to the cursive form, and (3) proper balance between drill exercises and emphasis on meaning.

569. GRANT, ALBERT, and MARBLE, MARGARET M. "Results of Cincinnati Handwriting Survey," *School Review*, XLVIII (November, 1940), 693-96.

Describes results of study of more than thirty-five hundred sixth-grade pupils and recommends that instruction in handwriting be continued beyond Grade VI.

570. KITTLE, RUTH. "Why Manuscript for Beginners?" *American Childhood*, XXVI (March, 1941), 35.

Describes a method of teaching manuscript writing and explains why beginners learn this form more easily than cursive writing.

THE SOCIAL SCIENCES¹

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571. BACON, ELLA. "The Dairy Cow: A Social Studies Unit," *Grade Teacher*, LVIII (September, 1940), 30, 78-81.

A well-organized outline for a unit in social studies at the primary-grade level.

¹ See also Items 194 (Koehring) and 220 (Wasson) in the list of selected references appearing in the April, 1941, number of the *Elementary School Journal*.

572. GAVIAN, RUTH WOOD. "Economic Education on the Elementary Level," *Economic Education*, 4-19. Edited by Harold F. Clark. Eleventh Year-book of the National Council for the Social Studies. Washington: National Council for the Social Studies, 1940.
- A statement of present practices in treating nine selected aspects of economic life, based on analysis of general courses and social-studies courses in Grades I-VI. Gives brief consideration to materials for economic education in elementary textbooks.
573. GREENBERG, EMIL. *Social Science References*. New York: New York University Bookstore, 1940. Pp. 22.
- An annotated list of sources of materials in the social-studies field, prepared by the reference staff of the library of New York University, as an aid to teachers, research workers, and graduate students.
574. GREGG, F. M. "An Important Principle in Teaching Primary-Grade Geography," *Elementary School Journal*, XLI (May, 1941), 665-70.
- On the basis of experiments reported, concludes that pupils in Grades I and II should be encouraged in the "*habit* of taking directional *attitudes*" as an aid to their study of third-grade geography, as well as to their correct geographic orientation in later life.
575. HESS, HELEN F. "New England: A Social Studies Unit of Current Interest," *Grade Teacher*, LVIII (November, 1940), 14-15, 66-67.
- A comprehensive outline of a social-studies unit, including related activities in language arts and in fine arts.
576. HILDRETH, RUTH C. "Our Water Supply: A Social Studies Unit with Suggested Activities," *Grade Teacher*, LVIII (October, 1940), 54-55, 79-80.
- Presents an outline and a description of procedures effectively used in studying the problem of water supply.
577. JOHNSON, HENRY. *Teaching of History in Elementary and Secondary Schools with Applications to Allied Studies*. New York: Macmillan Co., 1940 (revised). Pp. xvi+468.
- A revised edition of a very useful work originally published in 1915. Chapters on "Teaching Chronology" and "The Treatment of Current Events" have been added. Contains a bibliography.
578. LAWSON, DOUGLAS E. "Geography Then and Now," *Elementary School Journal*, XLI (April, 1941), 597-604.
- A brief account of the history of geography in the public schools followed by an indication of trends in present teaching of geography as revealed by a study of curriculum developments in ten large cities.

579. LUDEMAN, W. W. "Money: A Social Science Unit," *Grade Teacher*, LVIII (September, 1940), 52-53, 76-77.
Contains valuable suggestions for presenting a difficult subject to pupils in intermediate grades.
580. MCKELVEY, FREDERICK H. "Utilizing Library Resources in Elementary Social Studies," *Social Education*, IV (December, 1940), 570-72.
Suggests ways in which school and community libraries can be used more effectively by both pupils and teachers.
581. MATHEWS, CHARLES F. "Training of an Elementary Social Science Teacher," *Texas Outlook*, XXIV (September, 1940), 43-44.
Discusses requirements which elementary social-science teachers should fulfil.
582. MERTON, MINETA. "Effective Use of Still Pictures in Elementary Social Studies," *Social Education*, IV (November, 1940), 489-92.
Indicates difficulties encountered by children in interpreting still pictures and shows how teachers can make such pictures more meaningful.
583. MOORE, CLYDE B. "Building Social Foundations in the Elementary Schools," *Social Education*, V (April, 1941), 283-87.
Considers the particular role of the social-studies program in developing democratic ideals, attitudes, and habits.
584. REEDER, EDWIN H. "Social Studies in the Elementary School," *National Elementary Principal*, XX (April, 1941), 137-40.
A plea for a more functional social-studies training at the elementary level. Emphasizes the values of effective pupil participation in school government and of adequate factual backgrounds in world-geography and in United States history.
585. SIMPSON, I. JEWELL. "Social Studies in Maryland's Elementary Schools," *Curriculum Journal*, XII (January, 1941), 26-28.
A brief description of a social-studies program which resulted from a co-operative effort among elementary-school teachers in Maryland.
586. TOZER, AGNES R. "Social Science Project," *Sierra Educational News*, XXXVII (June, 1941), 37.
Describes a pageant prepared and presented by fifth-grade pupils in which events connected with the discovery, growth, and development of the United States were portrayed by means of miniature figures drawn across the stage by concealed magnets.
587. WARD, DOUGLAS S. "Community Surveys for Junior High Schools?" *Social Education*, IV (December, 1940), 553-56.
Gives suggestions for effective use of the community-survey technique, together with a report of two successful surveys.

GEOGRAPHY

EDITH P. PARKER

University of Chicago

588. ATWOOD, WALLACE W. "Geography and the Great Human Dramas," *Journal of Geography*, XXXIX (December, 1940), 337-43.
Stresses the need for co-operation of scientists in developing an understanding of a community and shows how geography furnishes the foundation for such an understanding.
589. BALDWIN, J. W. "Geography and Latin American Good Will," *Texas Outlook*, XXIV (June, 1940), 6-8.
Emphasizes the importance of geography as a social study.
590. BARTON, THOMAS F. "Primary Geography," *Illinois Education*, XXIX (October, 1940), 41-42, 57.
Explains that simple concepts of physical features should be gained in the primary grades and suggests several ways of helping children acquire them.
591. BRANOM, FREDERICK K. "Free or Inexpensive Geographic Materials," *Chicago Schools Journal*, XXII (September-October, 1940), 26-37.
Tells how and where teachers may obtain some valuable geographic materials.
592. BURGESS, ALVIN V. "The Use of Maps in Developing Geographic Personalities," *Journal of Geography*, XL (February, 1941), 57-64.
Describes the use of maps in developing ideas concerning the geographic personality of Australia.
593. CONS, G. J. "Geography," *New Era in Home and School*, XXI (July-August, 1940), 159-62.
Emphasizes the importance of geography in the training of socially alive citizens and points out means of accomplishment.
594. CURTIS, DWIGHT K. "Physical Geography Can Develop Social Understandings," *Social Education*, IV (May, 1940), 342-45.
Shows how fifth-grade pupils can learn enough about physiography to help them understand certain types of geographic situation.
595. GALFORD, MARY. "Activities in Geography Classwork," *Journal of Geography*, XL (February, 1941), 64-66.
Describes worth-while extra activities for fast working pupils.
596. GARNETT, OLIVE. "Reality in Geography," *Journal of Education* (London), LXXII (April, 1940), 171-73.
Discusses the need for making geography function in real life and shows how geography teaching can be improved to this end.

597. HESLOP, MARY K. "A Plea for the More Scientific Approach in the Teaching of Geography," *Journal of Education* (London), LXXII (July, 1940) 326-28.
Discusses one method of teaching the principles of world-climate.
598. MASON, CHARLES C. "Geography Made Meaningful," *School Executive*, LX (November, 1940), 18-19.
Tells how pupils' difficulties in understanding reading materials were reduced.
599. PACKARD, LEONARD O. "Teaching Geography in 1940-41," *Journal of Geography*, XL (January, 1941), 8-12.
Cites reasons for using the factual material in geography textbooks to teach Europe as it was in order that children will understand as fully as possible the changes which have occurred and will take place as a result of the present war.
600. PARKER, EDITH P. "Geography and the Community," *Journal of Geography*, XL (March, 1941), 98-108.
Describes many kinds of geographical experiences involved in a fifth-grade study of a small community.
601. RILEY, NORMA. "A Glossary Game," *Journal of Geography*, XXXIX (December, 1940), 365-66.
Suggests an interesting type of review.
602. SELSKY, MARCELLA S., and SMUCK, L. MERLE. "Enrichment in Geography," *Baltimore Bulletin of Education*, XVIII (September-October, 1940), 57-63.
Shows in detail how the geography program can be adjusted to superior pupils.
603. STADTLANDER, ELIZABETH. "Geography as the Core in Unit of Thought Teaching," *Journal of Geography*, XL (January, 1941), 19-23.
Deals with interrelations between geographic and other materials.
604. TOM, A. O. "Relief Modeling in Elementary Geography," *Journal of Geography*, XXXIX (October, 1940), 281-84.
Describes a project designed to give correct ideas of surface features of Africa.
605. UNGASHICK, JANE. "The Use of Current Events in Geography Teaching," *Journal of Geography*, XXXIX (November, 1940), 315-19.
Suggests interesting ways of presenting current events in connection with the teaching of geography.
606. UTTLEY, MARGUERITE. "Fourth Grade Geography Test," *Journal of Geography*, XXXIX (October, 1940), 269-73.
Summarizes the results of the work of the testing committee of the National Council of Geography Teachers.
607. WHIPPLE, GERTRUDE. "Human Geography—From Slogan to Actuality," *Elementary School Journal*, XLI (January, 1941), 337-46.
Cites reasons why reading materials in geography should be revised.

Educational Writings



REVIEWS AND BOOK NOTES

THE ACTIVITY PROGRAM: ITS PHILOSOPHY AND PRACTICE.—In his recent book¹ Macomber outlines the underlying philosophy of the "activity program" and describes its use in the elementary-school classroom. In good pedagogical manner he begins by illustration and reserves his theoretical material for a later section. Intended for the elementary-school teacher with a minimal amount of scientific training, the book is written in a simple and direct style that should have distinct appeal for the audience for which it was designed.

The keynote of the book is cleverly presented in the opening chapter by means of contrasted accounts of the course of events observed in a day's visit to each of two fifth-grade classes, one of which was taught according to "traditional" methods, the other by the more flexible plans of modern, progressive education. This device is, of course, not new; the unusual feature consists in the fact that the author has not found it necessary to bolster his own frankly admitted preference for the "progressive" type of school by choosing examples of the one at its worst, the other at its best. Instead, he selects superior examples of each type and in his comparison lays more stress on the relative goals toward which teachers and pupils were aiming in the two instances than on the more obvious differences in classroom routine. He points out that the latter result directly from the different concepts of education held by the two teachers. The modern, progressive view is that the essential thing in teaching is the general development of the child; the older view, that the desired thing is the acquisition by the child of the specific skills covered by the school curriculum. The question that each teacher must ask himself is not whether the *methods* of progressive education are to be preferred to the traditional methods but, rather, which of the two basic *philosophies* is more sound.

The next four chapters are devoted to detailed descriptions of the planning and conducting of specific "unit activities" at various age levels, after which the author turns to a somewhat more general discussion of the function of modern education in promoting social adjustment, a scientific outlook upon the world, and creative expression. Further chapters deal with classroom management and school counseling and with factors making for a teacher's success.

The format of the book is excellent. The typography is exceptionally clear, and the illustrations, both anecdotal and pictorial, are well selected. The references at the end of each chapter are chosen for their practical usefulness in directing the teacher to source material for unit activities.

¹ Freeman Glenn Macomber, *Guiding Child Development in the Elementary School*. New York: American Book Co., 1941. Pp. viii+336. \$2.50.

Although the author meticulously sets down, in fifteen numbered paragraphs (chap. xiii), the underlying principles on which the educational procedures here described are based, he makes no attempt to demonstrate, either by citation of authority or by statistical evidence, that this type of education is to be chosen above all others. Rather, he presents the facts as he sees them, serenely confident that they will speak for themselves.

In summary it can be said that Macomber has presented a clear and well-organized summary of the underlying theory of progressive education and a useful guide to the procedures employed in the activity program. It points an educational ideal that may well serve as a goal toward which teacher and community may strive. How useful it may prove as a working program for the average present-day school is somewhat more open to question.

FLORENCE L. GOODENOUGH

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THE OPPORTUNITY FOR PUPILS TO LIVE DEMOCRATICALLY.—If the American citizens of tomorrow—the thirty million boys and girls in our schools today—are to be capable of furthering the ideals of democracy, they must attain that ability through an education suited to a democracy.

Based on the validity of this contention are the logic and the practice outlined and recounted in a new book for the educator's reading table. *Guidance in Democratic Living*¹ diverges from the too prevalent type of armchair philosophy to a practical project planned and worked out in an elementary school of a typical American community. The author is principal of the Ashland School at East Orange, New Jersey. For a period of nine years, he and his staff considered the needs in the field of elementary education and evolved the socialized process which they felt would develop democratic living in their school.

The author seems to recognize the possibility that readers may question the validity of his experiment, and he therefore presents in great detail the carefully thought-out background of the project. At first contact with the book the reader feels a bit impatient to get into the actual working of the experiment; but the further he delves into the book, the more justifiable appears Hollingshead's plan of presentation. The problem of the school's responsibility is presented in three challenging questions pertaining to (1) the nature of democracy, (2) the objectives of an educational program suited to a democracy, and (3) how the school can provide opportunities for developing abilities, attitudes, and understandings to insure a citizenry capable of furthering democracy.

The nature of a democracy is summarized in a set of principles which serves as the criterion in guiding the development of the program of socialization. Out of these have evolved the objectives, or "directions of growth," of the individuals

¹ Arthur D. Hollingshead, *Guidance in Democratic Living*. New York: D. Appleton-Century Co., Inc., 1941. Pp. xiv+260. \$1.80.

and groups in the school. Fundamental in the objectives is the socialization ideal. Therefore it seems necessary to present the theories of socialization which the author and his staff have formulated. They regard individualization and socialization not as mutually antagonistic but rather as complementary and interdependent ideas—"but two sides of a single process." The thesis of the entire volume is centered in this discussion.

Socialization for a democracy must take place in a democracy. If a child is to develop the attitudes and abilities of co-operation, he must be given the opportunity of planning and working with others toward the achievement of common goals. If he is to develop a sense of personal responsibility, he must be permitted to live and work in a co-operative group. If he is to be self-directing, he must be given the opportunity of basing his actions upon the results of his own experiences and intelligence [pp. 72-73].

With this thesis as the point of departure, the book describes the actual working-out of the project of socialization in the Ashland School. Of course many problems arose. The detailed delineation of some of these is excellent. Consideration is given to the function of the teacher in a scheme of socialization, to the relation of teacher and group, to the tasks of group guidance, to the handling of the maladjusted child, and to the guidance of school organizations. The author lays particular stress on describing the how of the educational processes followed in the growth program. The what of teaching is given only when necessary to illustrate the how. This characteristic in the presentation is desirable since it prohibits the copying of the what by teachers who might thus attempt to follow the idea and not seek out those materials suited to their own particular situation.

It is accepted that the attainment or fulfilment of all the objectives set forth is not within the ability of the child and therefore not within the scope of the elementary school. The hope is expressed that similar opportunities for further developing the pupil may be offered in secondary and higher institutions of learning.

This book is one to be studied and not scanned in rapid fashion; for skimming may fail to bring true understanding of the function or the premises of the program. The sincere student of education will find that the author's discussion questions and suggested lists of readings stimulate careful study of the book.

Whether the teacher or the administrator agrees with the social theory of Hollingshead, he cannot help recognizing the worth-while character of this project as a contribution to modern pedagogy. The reader's philosophy may differ from that of the author in more than mere terminology, but even the person trained and steeped in a conservative educational philosophy must admit that there is a critical period present in educational practices. The alert educator, as a student of the child he is teaching, must admit that there is something in that child of today which emphasizes the failure of a static system of education.

Principals and teachers may well use this treatise as a guide to an introspec-

tive analysis of the psychology of their teaching. They should use it as a basis for evaluating their contribution to their communities; for now, if never before, our citizenry needs guidance in the practice of democratic living.

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THE PHILOSOPHY AND PRACTICE OF LOCAL SCHOOL ADMINISTRATION.—A distinctive revision of a work by Professor Ward G. Reeder¹ has appeared under the same title as the book published in 1930. As the author suggests, "The revision has been systematic and complete rather than perfunctory" (p. vii). Approximately 50 per cent more material has been added, and the organization of the book has been markedly improved. Much new material has been included on preparation and certification of teachers, administration of pupil transportation, administration of pupil guidance, and administration of safety education.

It seems that far greater emphasis has been given to the principles and philosophy of local school administration in the revision than in the earlier edition. In the words of the author, "It [the revised edition] essays to discuss the urgent and recurring problems found in the administration of a local school system whether the system be rural or urban, small or large" (p. vii). Since problems in educational administration are frequently the visible portion of the deeper, more fundamental problems of general administrative philosophy, the author devotes considerable space to the relation between practice and philosophy, although not neglecting the current problems of practical school administration. This clarified discussion of educational administrative problems and their related administrative philosophy will prove particularly valuable to the student of public-school administration.

The book is organized into the following seven major parts: (1) "Administrative Personnel and Organization," (2) "Administration of Instructional Employees," (3) "Administration of the School Plant," (4) "Administration of School Business Affairs," (5) "Administration of Pupil Personnel," (6) "Administration of Instructional Materials," and (7) "Special Phases of School Administration."

The question might well be raised whether a more effective organization might not have been made by placing "Administration of Instructional Materials" immediately after "Administration of Instructional Employees" and by placing "Administration of the School Plant" and "Administration of School Business Affairs" after the "Administration of Pupil Personnel." The question might also be raised whether it might not have been well to give more consideration to the relationships of the federal, state, and local governments with respect both to general and to school governments.

¹ Ward G. Reeder, *The Fundamentals of Public School Administration*. New York: Macmillan Co., 1941 (revised and enlarged). Pp. xvi+798. \$3.75.

The first chapter, entitled "School Administration in a Democracy," is very well done and could profitably have been twice its present length. In the chapter on "School Control and Organization" a more expansive treatment of school administrative units and school attendance units could have been presented. Similarly it seems unfortunate that the local school fiscal unit was not treated as such, either in chapter iii, "School Control and Organization," or in connection with chapter xiv, "Financing the Schools."

One very praiseworthy change in the organization of the revised edition is the inclusion of the administration of safety education along with the administration of health. The inclusion of the administration of health in a basic book in administration has been accepted as standard practice for some time; and in light of the increasing importance of safety, as well as its immediate association with the community at large, inclusion of a treatment of the administration of safety education seems appropriate.

The new chapter on pupil transportation is an excellent one and should prove extremely helpful in the formulation of sound and efficient programs for transporting pupils. The chapter on the administration of pupil guidance seems hardly adequate for the subject and scarcely reaches the level of the other new topics.

Chapter xxiii, "Evaluation of Results in Education," is a concise discussion of the measurement of pupils' general mental abilities and educational achievement. It might have been well if the author had recognized the broader aspects of evaluation and had given attention to some of the more recently developed techniques and procedures of evaluation. This deficiency, however, is offset somewhat by a strain of appraisal which runs throughout the work.

The physical makeup of the book is far more attractive than that of the original edition. The vividness and the clarity of the illustrative material are evidence of its value to the text. The questions and the suggestions for discussion found at the end of each chapter are stimulating and sound. The selected references which appear at the close of each chapter reflect discrimination and study. The author is to be congratulated on having made a good book considerably better.

JOHN GUY FOWLKES

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SCIENTIFIC STUDIES IN EDUCATION.—Much of the conspicuous improvement in the schools and colleges of the American states during the past quarter-century is generally ascribed to the zeal with which the teaching profession has labored to establish a scientific basis for the variety of instructional programs naturally to be developed by a democratic system of education. For a decade or two in the immediate past, the student, the professor, and the researcher in education have faced a sizable task whenever their own further endeavors involved a digest or review of the methods and findings of previous inquiry. It comes as a welcome announcement to the thousands of continuing workers in the field, and

to the novitiates as well, that the first comprehensive summary of research² in the various phases of education is now available.

Some measure of the service contribution to the advancement of the science of education which the preparation of this volume entailed is to be found in the listing of the more than seven thousand references by which the numerous articles are supported. It is to be noted, moreover, that the references listed were selected by the contributors to the encyclopedia from the far greater number of reports necessarily examined as a means of determining the nature and the significance of the research pertaining to the topics under review.

It is not alone the examining and the listing of thousands of studies which mark the publishing of this encyclopedia as a generous token of the contributors' interest in the progress of research in education. The project was planned, says the editor, "as a critical evaluation, synthesis, and interpretation of reported studies in the field of education" (p. vii). A careful reading of a reasonable number of these interpretative reviews will furnish to the competent observer convincing evidence that the examination of pertinent materials has been deliberative as well as extensive in relation to virtually all important topics. That some interesting topics could not be included, whether because of limitations of space or because of the failure of the expected copy to materialize, does not diminish the effective load involved in the production of the evaluative summaries which constitute the volume as it now appears.

The *Encyclopedia of Educational Research*, as its title implies, is limited to topics or problems on which there is a sufficient body of research literature to warrant the review and the evaluation of the available reports. It is not a general encyclopedia in the field of education. Because it is limited to the contributions of research, particular significance may be attached to the co-operative plan by which it has been produced. The authorship includes nearly two hundred contributors, selected from the ranks of experienced researchers in their fields of specialization. The number and the repute of these authors not only give assurance of the integrity of the reviews presented but also set an example of noteworthy co-operation in the furtherance of progress in all phases of education. The project was initiated by Professor Monroe, and there have been many testimonies to his skill and enterprise in bringing it to completion. That he was able to secure the co-operation of so many co-workers is evidence that a spirit of professionalism generally prevails. The American Educational Research Association sponsored the project and contributed funds for necessary expenses. The publishers assumed the cost of printing and distributing the volume. Other individuals and agencies assisted in various ways. Without the co-operation of all of these, the completion of the project would have been made more difficult, if, indeed, it could have been achieved.

² *Encyclopedia of Educational Research*. Prepared under the auspices of the American Educational Research Association, Walter S. Monroe, editor. New York: Macmillan Co., 1941. Pp. xxiv+1344. \$10.00.

An additional value of the articles presented in this encyclopedia will be derived from the frequent occurrence of suggestions for extending lines of investigation previously reported. These appear at times in the form of explanations of the limitations of the research reviewed, at times in references to unexplored areas. While many research workers have at their command the essential information to guide them in their studies, beginning students and many teachers and administrators lack the facilities for such guidance. The contributors to the present volume have provided significant direction for the research efforts of many who are so situated.

The scope and the organization of the volume are in keeping with the purposes for which it has been prepared. The inclusive character of the volume makes it unnecessary to mention the topics covered. These topics were selected as a result of the deliberations of the contributors and the suggestions of many other leaders in the field. There are few observable limitations to the content value of the volume. Its serious deficiency is the lack of the usual outline of topics and index. There are numerous cross-references at the ends of articles on special topics which are also treated under other general headings, and these are helpful; but the only guide to the location of special articles is the series of running heads, which are alphabetized with respect to major topical divisions. A general outline of topics and an adequate index would have contributed much to the convenience of those who consult this valuable reference work.

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A LANGUAGE PROGRAM FOR THE INTERMEDIATE GRADES.—For some time controversy has existed between those who advocate training in English for social utility and those who would adhere to a program of cultural disciplines. Traditional methods overemphasized drill and formal exercises and provided little, if any, opportunity for creative expression. Some modern curriculums have entirely abandoned the former in favor of ideas often obscured because techniques for adequate expression have not been learned. One attempt to steer a middle course is a recently published series¹ of four books planned for Grades III through VI.

In the presentation of material the authors have been guided by modern principles of curriculum-building in the field of English. As a means of integrating the four language arts of reading, writing, speaking, and listening, units and activities based on reading are alternated with those emphasizing conversation and discussion, various phases of composition, and the art of listening. In line with the point of view that English is not merely a content subject but that it

¹ Harry A. Greene, Maude McBroom, Ruth Moscrip, and Norma Gillett, *Building Better English: Step by Step*, pp. 320; *Day by Day*, pp. 336; *In School and Out*, pp. 352; *For Every Need*, pp. 352; *Manual for "Building Better English: Step by Step,"* pp. 256. Evanston, Illinois: Row, Peterson & Co., 1941. \$0.96 (each).

is also, and primarily, the medium through which children learn to participate in the activities of life, other school subjects and real-life situations are employed as subject matter for the English curriculum. Attention is given to the adequate development of skills, attitudes, and techniques; for effective English demands not only a child's desire to express himself but also "knowledge of, and control over," the techniques of expression. By striving for growth in the direction of avowed objectives rather than mastery of them as the goal, cognizance is taken of individual differences, and provision is made for individual needs.

The content of each volume has been arranged by units, fourteen in *Step by Step*, eleven in *Day by Day*, and ten each in *In School and Out* and *For Every Need*. Each unit is divided into sections containing, besides the presentation of material, standards for good performance, rules, drill exercises, assignments, and suggested activities. At the end of each unit several pages are devoted to suggestions for the planning and execution of further activities, "self-checking" tests, and exercises for practice and review. The material, revolving around the normal, everyday activities of the child, is presented through units on holidays, school newspapers, excursions, assemblies, friendships, manners, courtesy, sharing with others, safety, use of leisure time, using information, and a number of others. Indicative of the policy of repeating in the same book and in succeeding volumes units of similar content, each of the volumes has a special unit on science and one or more on poetry.

Although in most respects a strong series, this set of books has at least one weak feature: a number of the units do not possess unity. For example, *For Every Need* opens with a unit entitled "Playing the Game." The illustration of rival elevens on a "gridiron" with a stadium of cheering fans in the background seems appropriate to one interpretation of the title, but the content is concerned with reading, telling, and judging stories and with organization for group work, including class elections, minutes of meetings, plans for a council meeting, and committee work. "Checking Your Written Work" and "Checking Your Spelling" are the remaining center headings of this unit. The correct use of "threw" and "thrown," enunciation, use of the colon, proofreading, and the use of pronouns are illustrative of topics brought into the various sections. One can readily see that practical experiences and the application of techniques are combined, but to call such combination a unit is a contradiction in terms. However, the interesting, alive, up-to-date material probably more than compensates for deficiencies in organization.

Attractively bound and convenient in format, these books merit close examination by the teacher in search of a program featuring both normal, everyday language experiences and attention to expressional techniques.

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY
AND PRACTICE

- Adjusting Reading Programs to Individuals*. Proceedings of the Conference on Reading Held at the University of Chicago, Vol. III. Compiled and edited by William S. Gray. Supplementary Educational Monographs, No. 52. Chicago: Department of Education, University of Chicago, 1941. Pp. xii+344. \$2.00.
- BENNETT, M. E., with the editorial co-operation of LEWIS M. TERMAN. *College and Life: Problems of Self-discovery and Self-direction*. New York: McGraw-Hill Book Co., Inc., 1941 (second edition). Pp. xii+504. \$2.75.
- BINING, ARTHUR C., and BINING, DAVID H. *Teaching the Social Studies in Secondary Schools*. New York: McGraw-Hill Book Co., Inc., 1941 (second edition). Pp. xiv+378. \$2.75.
- BINING, ARTHUR C., MOHR, WALTER H., and McFEELY, RICHARD H. *Organizing the Social Studies in Secondary Schools*. New York: McGraw-Hill Book Co., Inc., 1941. Pp. xii+338. \$2.75.
- BRUNER, HERBERT B., EVANS, HUBERT M., HUTCHCROFT, CECIL R., WIETING, C. MAURICE, and WOOD, HUGH B. *What Our Schools Are Teaching: An Analysis of the Content of Selected Courses of Study with Special Reference to Science, Social Studies, and Industrial Arts*. New York: Teachers College, Columbia University, 1941. Pp. xii+226. \$3.00.
- CHATTERTON, ROLAND HENRY. *Methods of Lesson Observing by Preservice Student-Teachers: A Comparative Study*. Teachers College Contributions to Education, No. 834. New York: Teachers College, Columbia University, 1941. Pp. viii+138. \$1.85.
- COBB, BERTHA B., COBB, MADELYNE W., and COBB, ERNEST. *The Mind's Eye: Life and Learning through the Mental Picture*. New York: G. P. Putnam's Sons, 1941. Pp. 254. \$1.50.
- COWLEY, ELIZABETH BUCHANAN. *Free Learning*. Boston: Bruce Humphries, Inc., 1941. Pp. 334. \$3.00.
- DOLCH, EDWARD WILLIAM. *Teaching Primary Reading*. Champaign, Illinois: Garrard Press, 1941. Pp. 308. \$2.50.
- GRAY, GEORGE W. *Education on an International Scale: A History of the International Education Board, 1923-1938*. New York: Harcourt, Brace & Co., 1941. Pp. xiv+114. \$2.00.
- GREENE, EDWARD B. *Measurements of Human Behavior*. New York: Odyssey Press, 1941. Pp. xxii+778. \$3.50.
- GRIFFITHS, VERNON. *An Experiment in School Music Making*. Educational Research Series No. 15. Wellington, New Zealand: New Zealand Council for Educational Research, 1941. Pp. xii+104.
- HARRIS, RUTH MIRIAM. *Teachers' Social Knowledge and Its Relation to Pupils'*

- Responses: A Study of Four St. Louis Negro Elementary Schools.* Teachers College Contributions to Education, No. 816. New York: Teachers College, Columbia University, 1941. Pp. 90. \$1.60.
- HARTFORD, ELLIS F. *Our Common Mooring.* Prepared for the Advisory Panel on Regional Materials of Instruction for the Tennessee Valley. Athens, Georgia: University of Georgia Press, 1941. Pp. xvi+84.
- HORNE, JOICEY M. *The Art Class in Action: A Collection of Technical Information and Suggested Activities for Schools.* Toronto: Longmans, Green & Co., 1941. Pp. 136. \$2.00.
- Language Arts in the Elementary School.* Twentieth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XX, No. 6. Washington: Department of Elementary School Principals of the National Education Association, 1941. Pp. 229-672. \$2.00.
- SPEARS, HAROLD. *Secondary Education in American Life.* New York: American Book Co., 1941. Pp. xvi+400. \$2.50.
- Studies in Arithmetic*, Vol. II. Publications of the Scottish Council for Research in Education, XVIII. London: University of London Press, Ltd., 1941. Pp. xxvi+218.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

- Basic Readers: Curriculum Foundation Series (revision of Elson-Gray Basic Readers). *Friends and Neighbors* by William S. Gray and May Hill Arbuthnot. Chicago: Scott, Foresman & Co., 1941. Pp. 240. \$0.84.
- Basic Social Education Series: *City Government* by Howard J. Akers, pp. 48, \$0.32; *The Fight against Germs* by Kane Zelle, pp. 36, \$0.28; *From Barter to Money* by Flora C. Rue, pp. 36, \$0.28; *Our Federal Government* by Benjamin Brodinsky, pp. 48, \$0.32; *Public Health in America* by Avis E. Edgerton, pp. 48, \$0.32; *State Government* by Helen Hanford, Romance C. Koopman, and Karyl Kanet Chipman, pp. 48, \$0.32; *Wonderful Wings: The Story of Aviation* by I. Leon Maizlish, pp. 36, \$0.28; *Youth under Dictators: A Study of the Lives of Fascist and Communist Youth* by Oril Brown (checked for accuracy of facts pertaining to life and education of German and Russian youth by I. L. Kandel), pp. 48, \$0.32. Evanston, Illinois: Row, Peterson & Co., 1941.
- Bibliography of the Virgin Islands of the United States.* Edited by Charles F. Reid, Nathan Habib, Florence D. Clark, and Caroline Simonini. New York: H. W. Wilson Co., 1941. Pp. xvi+226. \$3.50.
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Educational News and Editorial Comment

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KNOWING OUR NEIGHBORS

UNDER the stimulus of the defense program and the "good-neighbor" policy of the United States in its relations with the other American republics, many groups of elementary-school children and their teachers are undertaking countless imaginary trips to the republics to the south of us. The magic of names like Arequipa, Antofagasta, Porto Alegre, and Pernambuco is vying with the romance surrounding names like Boston, Charleston, Houston, and San Francisco. Time which was formerly spent in studying China, Japan, or "lands in hot climates" is now occupied with activities centered in interests related to Brazil, Argentina, Peru, Colombia, Panama, and the like. Teachers who were getting somewhat bored with Eskimos, Indians, and pioneer life are turning with new enthusiasm to the Gauchos on the Argentine pampas and the Quechua farmers on the mountainsides of Chile and Peru. Parents are again pulling encyclopedias off the shelf to locate Buenos Aires and are attempting to find out the relations of the beef production of the United States, the tariff question, and the price of Argentine corned beef at the corner A. & P.

In this general rush to pursue topics of timely interest and pressing need, it might be well for teachers and administrators to consider a number of issues before making too many wide, sweeping changes in their programs of teaching activities.

1. Have you and your group of children considered the relation of this new topic to the background of understandings and attitudes already possessed by the group? Are you aware of some of the purposes to be achieved by the study of Latin America? Are these ends meaningful to, and are they accepted by, the children of your group? Is this activity merely the development of place geography with your pupils, or do you see it as an opportunity to develop tolerance, good will, and an appreciation of other cultures? Do you see this activity as an opportunity to build inter-American understanding based on something more fundamental than ability to trace the route of the Pan-American Clipper or to speak Spanish or Portuguese? Harold Benjamin, in an article entitled "Better Relations with Latin America," which appears in the October number of the *Journal of the National Education Association*, points out that this understanding must be based on: (a) a realization of the likenesses as well as the differences in languages, customs, traditions, beliefs, and basic needs between the people of your own community and the people of South American countries; (b) a realization that all Americans are struggling with the same fundamental problems of "food, shelter, health, the price of isolation and the price of wheat, the right to live and the right to strike, the love of children and the love of country"; (c) a realization of the importance of the type of co-operation implied when we are able to say to the pampas horseman: "Your own shelter will be improved as you recognize and act upon the needs of the businessman of Buenos Aires, the automobile worker of Detroit. You must learn to help make a new level of living for peoples far beyond the limits of your home ranges."

Finally, in regard to this first point, are you prepared to face conditions realistically when your pupils find out about the economic imperialism and dual standard of business ethics of the American businessman when dealing with "backward nations," or when they discover, as Luther H. Gulick notes in the July number of the *Educational Record*, that baseball players, movie actors, and swing-band leaders have often proved better promoters of friendly relations with South American countries than have our statesmen and our educators?

2. As a teacher, do you have an accurate fund of knowledge about the Latin Americas? Are you aware of the resources available to

aid you in extending your understanding? Are you aware of the program of the United States Office of Education and its committee for "the further development of understanding and appreciation of the other American republics"? The program of the Office of Education consists in (a) the making of studies and reports dealing with school practices and school materials related to inter-American studies; (b) the promotion of exchange of educational materials with Latin America; (c) the preparation of teaching aids; (d) the promotion and facilitation of professor, teacher, and student exchange; and (e) the making of studies of educational programs in other American republics. These reports and studies should be of great value to the teacher when they are available.

A late news release of the American Library Association indicates another aid in helping overcome this problem of obtaining authentic materials on Latin America when it states that "more and more reference materials are coming from Latin-American countries."

A teacher interested in this problem might also obtain assistance from the Service Bureau for Intercultural Education, 221 West Fifty-seventh Street, New York City. This bureau publishes the *Intercultural Education News*, pamphlets, maps, and other instructional material which might be helpful to an elementary-school teacher.

3. What materials on this topic are available for the use of children? This problem is one of the most difficult for the elementary-school teacher to face. Good educational material on the Latin Americas is scarce and not available to the average teacher. To aid teachers in tracing this material, the American Library Association has developed an excellent bibliography on *Latin America: Books for Young Readers* (Vol. XXXVII, No. 4, of the *Booklist*), from which the following is quoted.

The arrangement of the books on the list has been first those which were concerned with more than one country: followed by an alphabetical arrangement by country of titles which dealt with that particular subject. The grades in which the books would be of use have been indicated; and because of the varying ability of reading within a single grade, a somewhat more elastic grading has been used than is generally given.

The teacher can often find excellent source material on Latin America in the educational radio programs of the broadcasting chains, in the visual instructional aids now being developed, as well

as in the current periodicals and daily papers. A good source of information on current slides, film strips, and available films is the magazine *Educational Screen* published at 64 East Lake Street, Chicago, Illinois.

As a final caution it might be pointed out that the child's appreciation of the customs and problems of the people of Latin America is fundamentally based on his knowledge of the customs and problems of his own community and country. To ignore the child's own living and experience as a corner post to which to tie up understandings, to make comparisons, and to integrate his learning is to lose one of the finest teaching opportunities.

KNOWING OUR COMMUNITY

IN THE June number of the *Educational Screen*, Edward G. Olsen publishes an interesting article on "Community Study Is Realistic Education." He characterizes a trend in the elementary school as the movement from (1) "the traditional school, insisting upon book-knowledge-set-out-to-be-learned," to (2) "the activity school, emphasizing child-interests-to-be-expressed," to (3) "the community school, stressing human-needs-to-be-met." This trend, with its emphasis on the child's participation in the process of adequately providing for basic human needs in a particular community, has led to many differing types of understandings concerning the purpose of the community school and the nature of the experiences important for children.

The actual case histories presented by Elsie Clapp in her book *Community Schools in Action*; by Samuel Everett and other members of the Committee on the Community School of the Society for Curriculum Study in their book *The Community School*; and by Leonard Covello in his description of "Neighborhood Growth through the School," appearing in the February, 1938, number of *Progressive Education*, provide many interesting suggestions on how the teacher might utilize this opportunity to make the whole educational program more meaningful. The "community," in its essential meaning, is merely a group of people embarking on a common enterprise to meet a common need. Because of this fact, a teacher attempting to use the community as a center in the instructional

program must emphasize some understanding of what these common needs are and, more particularly, the *process* through which these needs are met. Many teachers have completely ignored these last two points and have confined their conception of the community school to making surveys of the personal and physical resources in the community; making trips with their children to many of these resources; and studying the history of the particular town, county, or state in which they live. It is conceded that all these activities have their place, but it should be remembered that their importance in developing a community-centered program lies in the understandings and the skills developed by the children as a result of this participation in the life-activities of a particular community.

Lloyd Allen Cook, in an article on "The Community and Its School," which appeared in the February, 1940, number of the *Review of Educational Research*, concludes:

We may say that a school is a community school to the extent that it seeks to realize objectives such as the following: (a) educates youth for participation in basic areas of personal-social living—life-activities, major problems of living, etc.; (b) democratizes personal and group contacts in school and outside; (c) uses community resources in the major aspects of its program; (d) co-operates with other agencies in improving community life, especially as it affects children; and (e) functions as a service center for youth and adult groups. Aside from the research bearing on (c), experimental or other work in the field of community education is fragmentary, inconclusive, and often subjective.

An examination of the many programs of community education in the light of these objectives will reveal obvious inadequacies. Surveys of techniques of community study conform to this same general pattern. Cook reports:

In general, practices embrace the making of trips, collecting of natural objects and cultural artifacts, interviewing community representatives, participating in social and civic activities, map-making and data-gathering via surveys, and the use of speakers in school programs. With one or two exceptions, few of these procedures have been evaluated in any objective sense.

School programs of "Knowing Our Community" have tended to ignore the development of understanding about, and participation in, basic areas of personal-social living and the need for development of skill in working together in group enterprises to accomplish

common ends. We have talked a great deal about democratization of life and teacher-pupil planning, but we have tended to emphasize the "talking-about" and the end product without paying much attention to the process through which these ends were accomplished. In an educational program the process is as important as the ends to be accomplished and cannot, therefore, be ignored.

Many teachers, out of their experience in working with children to achieve some of the ends enumerated by Cook, could make outstanding contributions to our present knowledge about the process. The writer's experience with a group of teachers in the Workshop in Elementary Education at the University of Chicago presents some evidence to substantiate this contention. A report on the results of their group thinking on the problems of teacher-pupil planning will be ready for publication in the latter portion of the current year.

In light of the ideas discussed above, it would seem that the basic elements underlying "Knowing Our Neighbors" and "Knowing Our Community" are the same and that they are founded on understandings related to the basic needs of people, wherever they live, and on recognition of the democratic process as a means through which people achieve ends important to themselves. It seems that any teacher might profit from some consideration of the issues mentioned here before going too far in pursuing these trends.

THE EDUCATION OF EXCEPTIONAL CHILDREN

THE ending of the five-year experiment with rapid and slow learners at Public School 500 (the Speyer School) in New York City is of interest to all who are concerned with the general problem of the education of exceptional children. The late Leta S. Hollingworth was responsible for the carrying-out of this research project, and she served as executive officer of the Speyer School until her death.

Of particular interest to elementary-school teachers is the general conclusion of the study in regard to the slow learner. The report, written by Benjamin B. Greenberg, assistant superintendent of schools, New York City, and Professors Featherstone, Bruner, and Pritchard, of Teachers College, Columbia University, who assisted

in the direction of the study, is now being printed. The following quotation is taken from a news item in the *New York Sun*.

The education of slow learners cannot properly be delegated to special classes or special schools, except as a last resort. . . . The type of education such pupils need is qualitatively the same as that needed by all the other pupils in the city. The organization of special schools and classes tends inevitably to emphasize spurious differences rather than genuine similarities.

The report recommended that slow learners be assigned to regular classes under a modified course of study and that the responsibility for the welfare of these pupils be concentrated in the home-room teacher.

These recommendations for the slow learner follow a trend in the thinking of persons who have been concerned with this problem for the past ten years. There is growing agreement that the needs of many types of exceptional children are best met through particular adaptations of their programs within the general framework of normal group activity. There is a growing consensus that the total gains of this procedure outweigh some of the specific gains of the special class.

It is somewhat of a surprise, then, to consider the recommendation made in the report that bright pupils *be taught in segregated classes*. The report states: "The intellectually gifted child often becomes conceited and self-centered when he finds himself at the head of his class of normal-progress pupils." He is more likely to develop normally when pitted in school against others of equal ability. The contrast between the recommendation for the slow learner and that for the education of the gifted child suggests either that two different philosophies should prevail in the elementary school (one when the slow learner and the normal-progress child are under consideration and another when the gifted child is being considered) or that differing philosophies prevailed in the writing of the two sections of the report. It will be interesting to see whether this apparent dichotomy will find general acceptance outside New York City.

The general recommendations for both rapid and slow learners are listed:

The first requisite in teaching the exceptional child is for his teacher really to know him; to know his personal problems, his needs, and his interests. The child's own needs, interests, and experiences must determine his educational program if it is to be satisfactory. In general, the program should include firsthand experiences; more trips and excursions, wider use of the movies and radio and other audio-visual aids. Schools should assume a larger share of responsibility for the out-of-school guidance of children.

Each school must consider itself a social institution, and teachers must have an understanding of neighborhood influences, cultural and educational resources available, and the individual differences of the children.

The curriculum must not be conceived as a group of subjects taught by a group of teachers within the four walls of a school building. The curriculum should be considered as the means by which the school aids children to improve their daily living. Emphasis should be not upon subject matter per se, but upon subject matter as it is used and as it is of significance to the children. The curriculum should grow out of the children and should be the sum and total of each child's experiences.

Reading should not be taught from "readers" alone, but from newspapers, magazines, books, and other printed matter. It should not be regarded as the one and only means of achieving a satisfactory educational adjustment.

Reading, arithmetic, and other skills should be taught functionally, as means and not as ends in themselves. Problems should be closely related to the children's daily life.

"Units of instruction" built around the children's own experiences or interests are helpful as a point of departure.

Each child should be made to feel that he "belongs" to the group and is making a definite and important contribution to whatever is undertaken.

One cannot help hoping that these general recommendations for the education of both the bright and the slow learner will also have application to the programs for the normal group.

There is increasing question whether the special class offers the solution to other phases of the problem of the exceptional child. Two reports from the Committee for the Study of the Care and Education of Physically Handicapped Children in the Public Schools of the City of New York, one on *Physically Handicapped Children in New York City* prepared by Harold W. McCormick and others; the second on the *Open Air Classes and the Care of below Par Children* prepared under the chairmanship of Dr. I. Ogden Woodruff, both indicate some question of the need for special-class provision for these children and recommend general school programs as the

best plan for meeting their needs. The report on *Physically Handicapped Children* says:

An educational program for handicapped children should prepare these children to meet life with a realistic attitude toward the limitations imposed upon them by their handicaps. It should lead them to a realization and acceptance of these limitations and counteract the tendencies to adverse mental habits and social attitudes. Above all, it should lead to a complete realization and development of their potential assets. Vocational training and recreational activities and a stimulating general educational program, with participation in many of the activities of normal children, can do much to safeguard the child against acquiring undesirable habits and attitudes.

The natural exception to this point of view is the child who cannot be moved from his home. In such a case some provision must be made. Providing visiting teachers and tutors to children thus seriously disabled is the ordinary solution to this problem, but the Iowa State Department of Public Instruction is employing an unusual plan. The shut-in children who cannot be moved are assisted by "an electrical two-way teaching device . . . used over a pair of ordinary telephone wires running from classroom to home." The department reimburses the local board up to fifty dollars for each installation. The first set was installed in 1939. More than seventy sets are now in use, the average cost being approximately forty dollars for each pupil. *School and Society*, from which this description was taken, indicates that the Iowa State Department of Public Instruction will send a circular explaining the installation to those who write W. A. Winterstein, statistician of the department.

LOOKING AHEAD

THIS autumn a total of 31,566,000 persons are enrolled in the 1941 educational army, 20,707,000 of them in the kindergarten and elementary-school divisions, according to the school-enrolment estimates of the United States Office of Education. For the kindergartens the estimated enrolment of 625,000 is a drop from last year's 640,000. In the elementary schools there is an estimated decrease of 210,000. In the secondary schools, however, the decrease has not appeared because the full effect of the decrease in birth-rate during the depression years has not yet been felt at the higher level.

The decrease in elementary-school enrolments has been reported

frequently in the past five years, with an explanation usually based on the factors of poor economic conditions and the change in family pattern. Information about the decrease in school enrolments is always interesting and important to know, but it is also important to study and report the effects that this decrease may have on the elementary-school program.

The most logical expectation would be to see a constantly decreasing teacher-pupil class load. One would expect to see reports of class sizes ranging from twenty-five to thirty-five rather than from forty-five to fifty. The decrease in class size should offer an opportunity for many teachers to work more intensively with individual children and with small groups. What is actually happening in your school? Are you taking advantage of this valuable opportunity, or are you allowing class sizes to be increased because economy measures are forcing decreases in teaching personnel, elimination of rooms, and in many cases elimination of complete buildings?

Another expectation would be to see a decrease in the building of new elementary schools and an increase in room space for the carrying-on of many important and vital activities formerly not possible. In many cities, particularly in the East and the Middle West, many interesting attempts are being made to utilize the opportunity. On the other hand, two complicating factors have introduced themselves into this picture. The middle-income groups in many cities are moving to outlying areas in search of more room, a yard, some fresh air, a place for children to play, lower taxes, and a larger lot on which to build a home. As a result the city is left with a serious shrinkage of the real-estate tax base and with many deteriorating residential sections which are turning into areas occupied by small business ventures, rooming-houses, and few children. The suburban area is faced, on the other hand, with a need for new schools to house the constantly increasing school population.

The impact of defense industries, forcing a tremendous shift in population in many areas, has proved to be the second complicating factor. Many elementary schools are faced with doubled school populations in the space of a single year. Many communities have had to appeal to the federal government for money to provide new schools and new facilities with which to meet this problem.

Another expectation, and not a particularly pleasant one to ex-

amine, is a constantly increasing average age in the large group of elementary-school teachers. It is possible at the present time to find elementary schools in many of our states with staffs having an average age of fifty-four and with no single teacher under forty. Staff averages of thirty-five to forty-five years are very common. It is difficult to determine the possible effects that the constantly increasing average age of the elementary-school teacher may have on the school program, but some of the factors which might be considered are (1) a constantly increasing age differential between the age of the teacher and the age of the pupil; (2) the positive and negative values of teacher groups stabilized for long periods of time; (3) the narrowed age range and the highly skewed distribution of the ages of the staff; and (4) the small number of new teacher replacements.

Naturally the possible harmful effects of these factors on educational programs will be minimized if effective leadership is offered by proper administration and by teacher-training institutions.

Administrators can offer leadership by seeing that in all schools the age distributions of the teachers are kept as normal as possible, by developing effective and forward-looking in-service training programs to aid all teachers in improving their understanding of children and their techniques of working with children, and by demonstrating through their own example and enthusiasm proper ways of overcoming some of these difficult problems. Teacher-training institutions, particularly those concerned with the training of elementary-school teachers, will have to realize that the tremendous need for new teachers in the elementary school is past and that they should concern themselves with the equally important, if not more significant, task of co-operating in the development of in-service training programs for experienced teachers.

This last point—the small number of new teachers entering the elementary schools—is a problem which is not faced realistically by many teacher-training institutions. In many city schools no new elementary-school teacher has been hired in the past five years; in some schools, in the past ten. There have been no new assignments in the Chicago elementary schools since March, 1939, and these last assignments were made from the 1934 graduating class of the Chicago Teachers College, according to a statement by Ira S. Turley, president of the Chicago Teachers Union, which appeared in the

Federation News. If and when new assignments are made, they will be made from the remainder of the 1934 list. This situation is somewhat typical of all cities and is not restricted to any one area. The rise in marriages and the greater financial opportunities in defense industries have changed this picture in the past year, but one can foresee a later resumption of this situation.

What are some of the possible results of the decreasing elementary-school population? An article by Emery M. Foster, chief of the Division of Statistics of the United States Office of Education, on "Schools and the Birth-Rate," appearing in the October number of *School Life*, gives us some help in looking ahead. Foster says:

The marriage rate for 1940 is the highest since 1920, and the birth-rate for the first four months of 1941 indicates that the 1941 rate may be the highest in ten years. In general it has been increasing since 1933.

The marriage rate for 1940 is 11.8 per 1,000 of total population. In 1920 it was 12 per 1,000 of population. If the birth-rate for 1941 is 18.5 per 1,000, it is the highest since 1930 when it was 18.9 per 1,000. In 1933 it was only 16.5.

The relatively small number of children born in 1933 should have entered school in 1939. The children born in 1934 furnish about 79,000 more (age six) to enter school in 1940 than had entered in 1939.

This fall (September, 1941) about 11,500 fewer children became age six than last fall and similarly in 1942 about 9,400 fewer than in 1941.

The fall of 1943, however, will see 53,600 more children ready for school than in 1942, which will compensate for the losses in the previous two years. Again in 1944 about 76,500 more children become age six than in the previous year.

In September, 1945, there may be another decrease of 19,500, but this will be wiped out by an increase of 80,900 entering school in 1946. Present indications are that there will be another increase of 54,900 entering in September, 1947, if the birth-rate for the first four months of 1941 continues throughout the year.

This will mean that in the fall of 1947, the nation as a whole will be providing for 225,500 more pupils beginning in the first grade than in 1940, an 11 per cent increase.

As hopeful as this information might be, there are probably sufficient teaching staff and adequate buildings already available to take care of this possible increase of 225,500 elementary-school children during the next five years. A more realistic hope is that the elementary-school teacher groups will stabilize themselves, that retirements will begin to balance the needs for new teachers.

VIRGIL E. HERRICK

WHO'S WHO FOR NOVEMBER

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by VIRGIL E. HERRICK, assistant professor of education at the University of Chicago. ARTHUR E. HAMALAINEN, principal of the Larkfield Elementary School, East Northport, New York, presents the results of a committee investigation of practices used in schools in New York State for evaluating the growth of pupils and outlines the items of evaluation used. FOSTER E. GROSSNICKLE, professor of mathematics at State Teachers College, Jersey City, New Jersey, reports a study which indicated the errors made in the division of decimals by pupils in Grades VI-IX. WILLIAM A. BROWNELL, professor of educational psychology at Duke University, describes the results of a survey of existing practice with regard to phonetic activities used in 546 urban and rural schools. LLOYD F. SUNDERMAN, director of music at the State Normal School, Oswego, New York, points out that the music-training program given in teachers' colleges is of great importance to the music curriculum in the elementary school and outlines the music course given at the institution with which he is connected. The lists of selected references appearing in this issue on arithmetic, science, music, art, industrial arts, home economics, library training, and health and physical education have been prepared, respectively, by the following persons: G. T. BUSWELL, professor of educational psychology at the University of Chicago; WARREN W. McSPADDEN, director of education, American Society for the Prevention of Cruelty to Animals, New York City; V. HOWARD TALLEY, instructor in music at the University of Chicago; W. G. WHITFORD, associate professor of art education at the University of Chicago; HOMER J. SMITH, professor of industrial education at the University of Minnesota; BEULAH I. COON, agent for studies and research in home-economics education in the United States Office of Education; EVANGELINE COLBURN, teacher-librarian in the University Elementary School of the University of Chicago; D. K. BRACE, professor of physical education at the University of Texas.

The writers of reviews in the current number FRANK W. HUBBARD, director of research, National Education Association, Washington, D.C. HAROLD T. RAMSEY, principal of the Whittier School at Kansas City, Missouri. FRANK ALLEN SMOLA, principal of the Roosevelt Unit, Cicero Public Schools, Cicero, Illinois. CARL L. BYERLY, supervising principal of the public schools at Elmhurst, Illinois. E. E. KEENER, principal of the John Hay School at Chicago, Illinois.

EXISTING PRACTICES IN THE EVALUATION OF PUPIL GROWTH IN THE ELEMENTARY SCHOOL¹

ARTHUR E. HAMALAINEN

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IN THE year 1939-40 a committee appointed by the New York State Department of Education surveyed the methods used in evaluating pupil growth in selected elementary schools in thirty communities in New York State.² That report stressed the number of schools using methods of evaluation such as continuous pupil records, reports to parents, cumulative folders, and the like. The committee this year surveyed the existing materials that it had previously gathered to determine actual statements of definite practices with illustrations of such practices.

THE PROBLEM OF THE COMMITTEE

The desire of the committee was to classify the statements describing actual practices into categories that would be most helpful to the classroom teacher and to the regular supervisor. With that end in view, the committee considered the sixfold classification in the *Cardinal Objectives in Elementary Education*³ and the fourfold

¹ Unpublished report presented at the Conference of Supervisors and Directors of Instruction in Elementary Schools in May, 1941, at Albany, New York. The members of the committee were: Louis Bernstein, George R. Champlin, Jessie V. Enevoldsen, Arthur Hamalainen (chairman), Johanna Hopkins, Arthur Hughson, A. Leila Martin, Emogene Tallcott. These members were assisted by Ruth Andrus and Warren G. Findley, State Education Department.

² The quantitative data underlying the report of this committee (Committee C) to the 1940 conference may be found in the following article: Arthur E. Hamalainen, "Evaluating Growth of Individual Children," *Elementary School Journal*, XLI (January, 1941), 359-67.

³ *Cardinal Objectives in Elementary Education*. A Revision of the First Report Prepared by the Committee on Elementary Education of the New York State Council of Superintendents. Albany, New York: University of the State of New York Press, 1933.

classification more recently proposed by the Educational Policies Commission¹ but finally decided that for the committee's purposes the material could be summarized best under the following headings: (1) "Physical Development: The growing individual"; (2) "Emotional Development: The maturing individual"; (3) "Mental Development: The individual growing in competence in applying skills and information"; (4) "Social Development: The maturing member of society"; (5) "General Development: The individual developing into an integrated person, realizing his fullest potentialities for his own welfare and for the welfare of the community and state."

The section "General Development" was made a part of the framework, since the committee wished to stress the generally accepted fact that the individual is something more than a physical, emotional, mental, social being—that, to evaluate his growth, we must consider not simply these factors, but these factors in the way in which they combine to present the picture of the child. The child is not the sum total of his physical, emotional, mental, and social factors; he is an individual who is completely understood only if one sees the manner in which the factors group themselves and function in his particular case.

The committee next broke the general aims reflected in the headings into more specific statements of actual pupil behavior. (Because of exigencies of space the subheadings under "Mental Development" were not broken down fully except for the topic of reading. Each of the eleven subheadings should be broken down into similar detail.) These statements of goals of pupil behavior were then compared with the statements of the schools surveyed. The results are the committee report. In some cases it was found that the schools are adequately evaluating pupil growth; in others there seemed to be a lack of means, or of assurance of means, of evaluation. In only a few places do the records give a total picture of the individual. Within a particular school system, rural or urban, may be found several different ways of evaluating individual pupil growth, often leading to a lack

¹ Educational Policies Commission, *The Purposes of Education in American Democracy*. Washington: National Education Association and the American Association of School Administrators, 1938.

of direction and unity. However, the fact that so many schools are attempting to do something concrete to determine how successful their programs are and how adequately the individual is being considered is a sign of healthy attitude in the elementary schools surveyed. What these schools actually do, with illustrations of their procedures, is indicated in the following outline.

PHYSICAL DEVELOPMENT
DEVELOPING PHYSICAL WELL-BEING

1. Goals: The child—

- a) Is growing normally in height, weight, and strength as a result of proper nutrition.
- b) Learns how to work more skilfully.
- c) Safeguards his own body against accidents and disease.
- d) Keeps himself clean.
- e) Cares for teeth, scalp, nails, and ears.
- f) Cares for bodily functions.
- g) Has and uses good sight.
- h) Has and uses good hearing.
- i) Develops and maintains proper habits and attitudes of physical health.
- j) Gains a knowledge of, and ability to practice, first aid.
- k) Learns the effects of harmful drugs, narcotics, and stimulants.

2. Techniques available

- a) Annual general health examination
- b) Special examinations of teeth, chest, feet, posture, etc.
- c) Observational records
- d) Standard eye test
- e) Telebinocular test
- f) Audiometer test
- g) Classroom tests of habits and attitudes of health
- h) Standardized health-awareness tests

3. Illustrations of practice

- a) "The doctor, nurse, and parent, when possible, are present."
- b) "Records obtained of preschool illnesses, operations, accidents, etc."
- c) "Separate dental chart kept for each child and a health history on which is recorded visits to dentist, illnesses, operations, etc., in addition to health comments. Copy for teacher and nurse."
- d) "Records of postural defects and X rays with remedial work and results obtained."
- e) "Two teachers in the school are trained in the use of the telebinocular test."
- f) "Audiometer test of each child is given each year by the nurse."

EMOTIONAL DEVELOPMENT
THE MATURING INDIVIDUAL

1. Goals: The child—

- a) Has an inquiring attitude toward life.
- b) Has the habit of concentration and perseverance.
- c) Exhibits habitual generosity.
- d) Evidences habitual order.
- e) Shows emotional stability (poise and effective reaction to frustration and failure).
- f) Indicates evidence of self-control and self-confidence.
- g) Derives satisfaction from work done.
- h) Assumes individual responsibility for the development of desirable social relationships.
- i) Recognizes and attacks significant problems in school and community environment.
- j) Becomes increasingly able to give responsible direction to his own life.
- k) Is successful in meeting requirements of his daily life.
- l) Appreciates social value of his own work.
- m) Is sensitive to his own problems.
- n) Speaks and writes easily.
- o) Organizes work in logical form.
- p) Has some vital hobbies.
- q) Develops his own peculiar aptitudes.
- r) Is learning how to budget and how to spend time and money.
- s) Has a knowledge of and practices safety.

2. Techniques available

- a) Observational records
- b) "Guess Who" Test
- c) Check sheets written by pupils
- d) Examination and study by school or state psychologist and psychiatrist

3. Illustrations of practice

- a) "The teacher records instances of behavior that indicate growth or lack of growth."
- b) "Pupils are enabled to participate in the evaluation."
- c) "Monthly check sheet is filled out by pupil on his own social progress and work habits."
- d) "Sometimes statements written by children are inclosed with the report card from Grade III on. There are individual conferences with the child and teacher or with the child and principal. Sometimes child, parent, teacher, and principal confer."
- e) "Psychologists are assigned to schools (1) to diagnose pupils' learning difficulties, (2) to investigate causes of maladjustment, (3) to advise on the forming of special remedial groups or groups which receive enriched work, (4) to examine all pupils by group intelligence tests."

- f) "Each child has a notebook of original problems in arithmetic . . . of actual experience in buying groceries and clothing."

MENTAL DEVELOPMENT

GROWING COMPETENCE IN APPLYING SKILLS AND INFORMATION

1. Goals: The child—

- a) Increases his ability to read.
 - (1) Basic vocabulary
 - (2) Reading for main ideas
 - (3) Reading for detail
 - (4) Reading to determine relevance of material to purpose
 - (5) Ability to vary reading approach, including speed, to suit purpose
 - (6) Special reading skills required in using index, dictionary, charts, tables, graphs, and maps
 - (7) Extensive and varied reading
 - (8) Appreciation of reading
- b) Understands elementary facts about the operation of his community as a social and economic unit.
- c) Understands elementary facts and principles of his biological and physical environment.
- d) Understands basic ideas of health and disease.
- e) Becomes skilled in using numbers and number relationships.
- f) Understands library procedures.
- g) Reads and discusses current events intelligently.
- h) Learns to write legibly, correctly, and effectively.
- i) Shows consistent improvement in speech habits.
- j) Develops an appreciation of beauty in art and music.
- k) Evaluates, criticizes, and corrects his own activities.

2. Techniques available

- a) Reading-readiness tests
- b) Objective reading tests produced by state education department or commercial publishers
- c) Reading guidance record to show extent and variety of reading
- d) Achievement tests
- e) Intelligence tests
- f) Diagnostic tests
- g) Progress charts
- h) Standardized handwriting scales
- i) Tests on rote spelling "demons"
- j) Objective tests of English usage
- k) Observation of speech habits
- l) Check lists of speech habits
- m) Pupils' drawings

- n) Appreciation tests
- o) Self-ratings of achievement
- 3. Illustrations of practice
 - a) "Several reading tests are used to get at different reading skills."
 - b) "Records are kept of books read by each pupil."
 - c) "Carbon copies of achievement-test results for the class are given to teacher and filed in principal's office. All other test results are filed in principal's office. Psychologists discuss these with grade teachers and principals, explaining use and interpretation of tests."
 - d) "Diagnostic test marks are recorded in special cases."
 - e) "Pupils help keep own charts of progress. Make graphs."
 - f) "Samples of work done by pupils are kept."
 - g) "Individual goal cards are kept."

SOCIAL DEVELOPMENT

THE MATURING MEMBER OF SOCIETY

- 1. Goals: The child—
 - a) Understands the difference between liberty and license.
 - b) Can profit by constructive criticism offered by fellow-workers or by others.
 - c) Evidences cheerfulness, friendliness, optimism, humor.
 - d) Learns to protect his own health and the health of others.
 - e) Plays with others and enjoys sports and recreation.
 - f) Adjusts himself easily to the social group.
 - g) Respects opinions of others.
 - h) Exhibits a growing sense of social responsibility.
 - i) Enjoys sincere friendships.
 - j) Appreciates and is loyal to members of his family group.
 - k) Practices principles of democratic living.
 - l) Is sympathetic and tolerant toward people with different backgrounds and abilities.
 - m) Is a responsible citizen of his own group.
 - n) Has an understanding and appreciation of the ideals of his own country.
 - o) Shows ability to work with other individuals, both adults and children.
 - p) Has ability for work with small groups in connection with other groups.
 - q) Aids in arriving at group decisions.
- 2. Techniques available
 - a) Anecdotal records
 - b) Evaluation of class group as a group
 - c) Records of extra-curriculum activities and interests
 - d) Case-study records
- 3. Illustrations of practice
 - a) "The anecdotal records, carrying check lists of character traits, knowledges and skills, space for observations, diagnostic procedures, and results, average about one notation for a pupil per week."

- b) "Pupils build own objective and check themselves and one another. Mutual criticisms and discussions have proved most valuable."
- c) "A group diary is kept of the class work."
- d) "Photographs of classroom activities are kept."
- e) "The groups keep a written record of what the pupils accomplish for a particular unit."
- f) "The general appearance of the room—the experiments in science that are being performed, the books children are reading, the maps they are using, the arrangement of the bulletin board, the beauty and attractiveness of the room are tangible evidences of a good working program."

GENERAL DEVELOPMENT

1. Goal: The child is developing into an integrated individual, realizing his fullest potentialities for his own best welfare and for the best welfare of the community and state.
2. Techniques available
 - a) The cumulative folder
 - (1) Physical and medical history
 - (a) Preschool accidents, diseases
 - (b) Annual health examination reports
 - (c) Accidents, diseases in school
 - (d) Treatment, such as operations, etc.
 - (2) Achievement in school
 - (a) Achievement-test results
 - (b) Records of intelligence tests
 - (c) Yearly marks, retardations, advancements, etc.
 - (3) Summaries by teachers of social and emotional development year by year
 - (4) Home background
 - (a) Number and ages of children in family
 - (b) Type of home
 - (c) Work of parents
 - (d) Work of child and other responsibilities
 - (5) Special aptitudes and interests
 - (a) Evidenced by extra-curriculum activities
 - (b) Evidenced by reactions to curriculum
3. Illustrations of practice
 - a) "The permanent record is kept in a folder in each classroom. It contains results of standardized tests, intelligence tests, reading-test results, copies of report cards, copies of informal notes sent home to parents, records of parent conferences, and diagnostic tests."
 - b) "Case histories are kept in the folder."
 - c) "The individual folder contains work of a graphic variety."

- d) "Everything within the folder is the child's own work, with the exception of report cards."
- e) "The folder contains a record of the child's extra-curriculum activities and interests."
- f) "The folder is 'weeded out' each year by pupil and teacher."
- g) "The folder goes with the pupil from teacher to teacher."
- h) "The cumulative folder is kept in the teacher's room."

SUMMARY

From the foregoing outline and from the other data available to the committee, it was possible to draw certain summarizations:

1. The most successful results in initiating and using records and methods of evaluating individual pupil growth are found in those schools employing the co-operative plan; that is, the methods and records are devised by conferences of teachers, principals, and supervisors.
2. The schools which have done the most are those which recognize that the process of devising means of evaluating growth is pragmatic and slow. These schools have expanded their records gradually to allow persons who are to keep them to work the new features into their procedures.
3. Moreover, these schools have felt free to discard records or methods which seemed to be of little value. The sanctity of the record or method has been determined by its function.
4. Records should be kept so that they are readily consulted and easily interpreted by teachers, supervisors, and principals.
5. Uniformity in record-keeping is a virtue to the extent that the procedure also provides for adaptation to local needs.
6. The means being used at present to determine day-by-day growth of pupils, particularly in the social sense, are observational methods.
7. The extent to which the pupil should contribute to his own evaluation is not clear. It is certain that he should enter into the process; yet how and to what extent is only partly understood at present.
8. Teachers who keep the most successful records by which to evaluate individual growth are in schools which stress the mental-hygiene approach.

9. Devising means of evaluating pupil growth need not be expensive or cumbersome.

10. Evaluating individual pupil growth is also a means of measuring the curriculum. The reactions of individual pupils to the work and methods of the school may indicate types of activity best for the individual.

11. There is a need for better understanding of instruments of evaluation available on the market.

12. The type of curriculum will determine to a large extent the type of records kept.

13. Two types of records are distinguished: (a) current records made and used by teachers, psychologists, school physicians, supervisors, and others to give a complete picture of the pupil's development while under their care; (b) cumulative records, kept either in the principal's office or in the teacher's room, which are summaries of current records and other sources. (Often, however, such cumulative records are confused with current records so that one finds both types together in a cumbersome and unwieldy assortment.)

14. The types of information most frequently kept in the current records are: class examinations, results of psychologists' tests, address of pupil, standardized tests given during the year, informal notes to parents, present report cards, anecdotal records, health examinations.

15. In some cases the individual pupils contribute much of the work to the record folders, such as classroom tests, summaries of their own conduct, work covered in class.

16. The cumulative record generally tends to show broad lines of progress in interests, ability, scholastic achievement, and character traits, while the current record represents growth during a particular year.

17. The cumulative record most often contains yearly marks, standardized achievement-test results, intelligence-test marks, diagnostic-test marks, reading-test results, samples of work done by pupils, statements of home situations and co-operation, health record, teacher judgment of pupil progress, profile charts, letters to parents, and statements of emotional and social growth.

TYPES OF ERRORS IN DIVISION OF DECIMALS

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IT IS a well-known fact that division is the most difficult of the four arithmetical operations with whole numbers. Consequently it is logical to infer that division of decimals is the most difficult operation with decimal fractions. The studies of Taylor¹ and of Wolfe² with college Freshmen show the low level of achievement of this group with certain phases of division of decimals. Taylor found that about 40 per cent of the errors in 270 test papers of Freshmen at the Eastern Illinois State Teachers College occurred in connection with the example $175 \div .35$. Wolfe found that 44 per cent of college Freshmen gave an incorrect solution to the example $.015 \div .6$ at the beginning of a course in trigonometry and that 29 per cent gave an incorrect solution to the same example at the end of the course in the same subject. Since college Freshmen represent a selected group, the unsatisfactory level of accomplishment attained in this group in a basic process of the elementary-school level shows that certain phases of the process are inherently difficult. Doubtless there are many other factors besides inherent difficulty which contribute to the poor achievement of the groups cited, but the difficulty of the process must be accepted as a potent cause of errors.

This study was made to determine what is the cause of the difficulty in division of decimals. The criterion of difficulty was the number of errors made in the solution to a given example of a particular type. An attempt was made to determine whether error results from division, from placement of the decimal point in the quotient, from the placement of the quotient and the placement of the point, or from a combination of all three of the previous alternatives.

¹ E. H. Taylor, "The Preparation of Teachers of Arithmetic in Teachers Colleges," *Mathematics Teacher*, XXX (January, 1937), 10-14.

² Jack Wolfe, "Mathematical Skills of College Freshmen in Topics Prerequisite to Trigonometry," *Mathematics Teacher*, XXXIV (April, 1941), 164-70.

There are four distinct types of examples in division of decimals. The term "decimal" includes pure decimals, such as .6, and mixed decimals, such as 1.4. The four types of examples are (1) dividing a decimal by an integer, as $4.5 \div 2$; (2) dividing two integers with a decimal in the quotient, as $7 \div 5$; (3) dividing an integer by a decimal, as $6 \div .5$; and (4) dividing a decimal by a decimal, as $2.4 \div .5$. The number of possible structural types of examples for these four classifications varies according to the degree of demarcation decided on as being essential for a new example. Distad¹ decided that there are sixty-one structural possibilities for these four classifications. The writer made an analysis of these examples and decided that all the various types could be included in twenty-one different examples. Distad offered three kinds of examples which were not included in this study: problems in which (1) the divisor contained three significant figures, (2) the exact quotient cannot be found, and (3) the divisor or the dividend or both contained a zero between the point and the first significant figure. These three types accounted for twenty-two of the sixty-one types mentioned.

The test used in this study contained forty-two examples, or twenty-one different types. There were two examples for each type. One of the examples for each type contained a one-figure divisor or an easy example with a two-figure divisor. The other example of a given type contained a two-figure divisor. In case the component part of a given type contained a two-figure divisor, the second part represented a difficult example in division. The writer's investigations of division of whole numbers indicate that a difficult example in this process is one in which the estimated quotient is not the true quotient. Brueckner and Melbye² found that examples in which the estimated quotient has to be corrected are more difficult than those in which the estimated quotient is the true quotient.

¹ H. W. Distad, "An Analysis of the Drill Provisions in Division of Decimals in Ten Arithmetic Series," *Journal of Educational Research*, XXVII (March, 1934), 509-23.

² Leo J. Brueckner and Harvey O. Melbye, "Relative Difficulty of Type of Examples in Division with Two-Figure Divisors," *Journal of Educational Research*, XXXIII (February, 1940), 401-14.

The basic test used in this study is given below. The four parts of the test, designated by Roman numerals, correspond to the four major classifications of examples previously mentioned. The exact quotient may be found for each example in the test. The instructions to the pupil informed him of this fact.

THE BASIC TEST

PART I. DIVIDING A DECIMAL BY AN INTEGER

Easy Examples

a) $6 \overline{) .48}$

d) $3 \overline{) 8.4}$

b) $8 \overline{) .36}$

e) $8 \overline{) 52.4}$

c) $4 \overline{) .1}$

f) $3 \overline{) .81}$

Difficult Examples

a') $18 \overline{) .72}$

d') $14 \overline{) 19.6}$

b') $14 \overline{) .21}$

e') $18 \overline{) 47.7}$

c') $12 \overline{) .9}$

f') $25 \overline{) 7.75}$

PART II. DIVIDING INTEGERS WITH A DECIMAL IN THE QUOTIENT

Easy Examples

a) $6 \overline{) 3}$

b) $44 \overline{) 550}$

c) $50 \overline{) 1}$

Difficult Examples

a') $28 \overline{) 14}$

b') $16 \overline{) 200}$

c') $75 \overline{) 6}$

PART III. DIVIDING AN INTEGER BY A DECIMAL

Easy Examples

a) $.3 \overline{) 9}$

d) $3.2 \overline{) 432}$

b) $.4 \overline{) 3}$

e) $7.5 \overline{) 3}$

c) $2.5 \overline{) 5}$

Difficult Examples

a') $1.6 \overline{) 64}$

d') $1.6 \overline{) 264}$

b') $.36 \overline{) 27}$

e') $2.5 \overline{) 2}$

c') $1.5 \overline{) 9}$

PART IV. DIVIDING A DECIMAL BY A DECIMAL

Easy Examples

a) $.2 \overline{) 7.2}$

e) $.4 \overline{) .172}$

b) $.51 \overline{) 107.1}$

f) $6.5 \overline{) .1625}$

c) $.8 \overline{) 5.84}$

g) $6.8 \overline{) .34}$

d) $4.5 \overline{) 10.35}$

Difficult Examples

a') $3.6 \overline{) 93.6}$

e') $3.2 \overline{) .672}$

b') $.26 \overline{) 148.2}$

f') $3.6 \overline{) .3132}$

c') $.16 \overline{) .912}$

g') $3.5 \overline{) .28}$

d') $2.7 \overline{) 12.96}$

There were four forms of the test (Forms A, B, C, and D), and each pupil took all four forms. Form A consisted of whole numbers with no decimals in divisor, dividend, or quotient. Difficult example *c'* in Part II was written on Form A as $75 \overline{) 600}$. Form B contained the quotient figures with the point missing, and the pupil was instructed to complete the division and insert the point. Easy

example *b* in Part I was written on Form B as $8 \overline{) .36}^{45}$. Form C contained the quotient figures written at the side of each example. The pupil was instructed to solve each example in full. The illustration in Form B was written as follows in Form C: $.36 \div 8 = 45$. Form D was the same as the basic test given above.

It was previously stated that the purpose of this study was to show whether errors in division of decimals are errors in the division process, errors in placement of the point, errors in placement of the point plus errors in placement of the quotient, or a combination of all three. Form A was designed to show the errors in division; Form B was designed to show the errors in placement of the point; Form C was designed to show the errors in placement of the point and in placement of the quotient; Form D was designed to show the errors in the combination of all these factors.

The test was given to approximately two hundred pupils in each grade from Grade VI to Grade IX, inclusive, in four school centers near Jersey City. The test in Grade VI was not given until near the end of the school year. All phases of division of decimals had been presented in the various classes before this test was given. In each school center the pupils used one of two modern textbooks in arithmetic. Each of these series was written by authors of prominence in the field. The four forms were taken on consecutive days, and no coaching or class discussion was given on any phase of the tests. There was no time limit on any of the tests, and each pupil completed all the examples on each test.

This study was made to determine the cause of error in division of decimals when the subject is presented in the conventional textbook manner. No effort was made to measure the factor of intelligence of the pupils or the degree of meaning and insight which the pupils

attained in the process. The large number in each grade and the progress through four grades in several school centers assured an adequate sampling to produce reliable results.

Table 1 shows the number of incorrect examples on each form of the test in the four grades. An example was considered incorrect if any part of it was incorrect. This method of scoring the tests proved to be as effective as counting the number of separate errors in each example. A total of 237 papers for Form D were scored by both methods. The correlation between the two sets of scores was found to be $.96 \pm .008$. This high correlation indicates that not much is gained by using a refined method for scoring a test paper. A previous study¹ verified this conclusion.

Table 1 shows that more errors were made on Form B than on any of the other forms. In this form the quotient figures were supplied, but the decimal point was missing. For all four grades, about 34 per cent of the errors resulted from faulty placement of the decimal point. Brueckner² made an analysis of errors from more than three hundred pupils in Grades VI, VII, and VIII and found that almost 70 per cent of the errors resulted from "difficulties peculiar to decimal situations." Probably this statement means that the placement of the point is the chief factor of difficulty. The position of the point is determined in many examples by the number of zeros which need to be prefixed or annexed to the given quotient.

The small percentage of errors in the division process is shown in Table 1 under Form A. It is readily seen that the division process is not a dominant factor in the difficulty of division of decimals.

Since it was found that the placement of the point is the chief element of difficulty, the next problem was to determine the relative difficulty of the four parts of the test. Table 2 shows conclusively that Part III, dividing an integer by a decimal, was the most difficult part of the test. The high percentage of errors in this part shows that this form of division is not adequately taught in many schools. Distad showed that a much smaller amount of practice material is

¹ Foster E. Grossnickle, "How the Method of Scoring a Test in Division Affects the Score," *Elementary School Journal*, XL (January, 1940), 366-70.

² Leo J. Brueckner, "Analysis of Difficulties in Decimals," *Elementary School Journal*, XXIX (September, 1928), 32-41.

offered in arithmetic textbooks for dividing an integer by a decimal than for any of the other types of examples in division of decimals.¹

TABLE 1
NUMBER OF INCORRECT EXAMPLES ON ALL FORMS OF
TEST IN DIVISION OF DECIMALS IN GRADES VI-
IX, INCLUSIVE, AND PERCENTAGE OF INCORRECT
EXAMPLES ON EACH FORM

Form of Test and School Grade	Number of Incorrect Examples	Percentage of Total
Grade VI (172 pupils):		
Form A.....	188	5.4
Form B.....	1,256	35.9
Form C.....	1,098	31.4
Form D.....	956	27.3
Total.....	3,498	100.0
Grade VII (224 pupils):		
Form A.....	586	13.8
Form B.....	1,203	28.4
Form C.....	1,008	23.8
Form D.....	1,442	34.0
Total.....	4,239	100.0
Grade VIII (165 pupils):		
Form A.....	246	8.8
Form B.....	852	30.6
Form C.....	801	28.7
Form D.....	891	31.9
Total.....	2,790	100.0
Grade IX (200 pupils):		
Form A.....	458	6.4
Form B.....	2,617	36.8
Form C.....	1,808	25.4
Form D.....	2,230	31.4
Total.....	7,113	100.0
All grades (761 pupils):		
Form A.....	1,478	8.4
Form B.....	5,928	33.6
Form C.....	4,715	26.7
Form D.....	5,519	31.3
Total.....	17,640	100.0

Table 2 also gives the index of difficulty of each part. This index was determined by dividing the number of errors made on each part

¹ H. W. Distad, *op. cit.*, p. 520.

by the product of the number of pupils and the number of examples on the given part. The total number of errors made on a part was an

TABLE 2
NUMBER AND PERCENTAGE OF INCORRECT EXAMPLES IN, AND
INDEX OF DIFFICULTY OF, EACH PART OF TEST IN
GRADES VI-IX, INCLUSIVE

Part of Test and School Grade	Number of Incorrect Examples	Percentage of Total	Index of Difficulty
Grade VI (172 pupils):			
I. Dividing decimal by integer.....	303	7.6	0.147
II. Dividing integers with decimal in quotient.....	628	15.8	.615
III. Dividing integer by decimal.....	2,161	54.5	1.271
IV. Dividing decimal by decimal.....	875	22.1	.369
Total.....	3,967	100.0	.....
Grade VII (224 pupils):			
I. Dividing decimal by integer.....	690	15.0	.256
II. Dividing integers with decimal in quotient.....	782	17.0	.585
III. Dividing integer by decimal.....	1,861	40.5	.831
IV. Dividing decimal by decimal.....	1,260	27.5	.403
Total.....	4,593	100.0	.....
Grade VIII (165 pupils):			
I. Dividing decimal by integer.....	390	12.8	.197
II. Dividing integers with decimal in quotient.....	609	20.0	.615
III. Dividing integer by decimal.....	1,375	45.2	.833
IV. Dividing decimal by decimal.....	670	22.0	.290
Total.....	3,044	100.0	.....
Grade IX (200 pupils):			
I. Dividing decimal by integer.....	1,111	18.4	.463
II. Dividing integers with decimal in quotient.....	1,142	18.9	.952
III. Dividing integer by decimal.....	2,432	40.3	1.216
IV. Dividing decimal by decimal.....	1,351	22.4	.483
Total.....	6,036	100.0	.....
All grades (761 pupils):			
I. Dividing decimal by integer.....	2,494	14.1	.272
II. Dividing integers with decimal in quotient.....	3,161	17.9	.781
III. Dividing integer by decimal.....	7,829	44.4	1.029
IV. Dividing decimal by decimal.....	4,156	23.6	0.389
Total.....	17,640	100.0	.....

unsatisfactory measure of difficulty of the various parts because Part II contained only six examples while Part IV contained fourteen examples. For Part I in Grade VI, the index of difficulty was

the quotient of $303 \div (172 \times 12)$, or 0.147. Almost four times as many errors were made when an integer was divided by a decimal as when a decimal was divided by an integer and almost three times as many as when a decimal was divided by a decimal.

An analysis was made of the kinds of errors made by each pupil in each grade on all four forms of the test. These errors were classified into ninety-eight categories. Because of limitations of space it is not possible to give a description of all these errors. Two kinds of errors were more frequent than any other kinds. The first type may be described as one in which the divisor was treated as a whole number. The other type may be described as one in which the pupil shifted the point in the dividend by counting from the left of the number instead of from the right of it. The latter may be illustrated by the example $.5 \overline{) 15}$. The pupils' work indicated the procedure

to be as follows: $\overset{.3}{.5} \overline{) \overset{.3}{15}}$. The example $.3 \overline{) 9}$ (easy example *a*, Part III) is one of the easiest division examples on the whole test, but this example was missed more often than any other. The use of the procedure shown above was the chief reason for the large number of errors in the solution.

The method of shifting the decimal point in division of decimals by the use of carets or arrows is almost universally taught in current arithmetic textbooks. This procedure is a mechanical device which should not be used at the elementary-school level. If the divisor were always made an integer, most of the errors in division in decimals could be eliminated. The small percentage of errors in Part I shows that this statement is true. Drushel¹ found that pupils who were taught to change the divisor to an integer made higher scores in tests involving decimals than those who used another method.

The kinds of errors made on this test in all grades show that the shifting of the decimal point is largely a mechanical operation which is performed with little or no understanding. The small percentage of errors in Part IV is due to the fact that in examples of this type a rule-of-thumb procedure will work in a comparatively satisfactory

¹ J. Andrew Drushel, "A Study of the Amount of Arithmetic at the Command of High-School Graduates Who Have Had No Arithmetic in Their High-School Course," *Elementary School Journal*, XVII (May, 1917), 657-61.

manner. The point in the example $.3\overline{) .15}$ may be shifted correctly in this case as shown in the second illustration: $\begin{array}{r} .3\overline{) .15} \\ \rightarrow \quad \rightarrow \end{array}$.

Table 3 gives the mean number of incorrect examples in each group for each of the four forms of the test. The column on the

TABLE 3

MEAN NUMBER OF INCORRECT EXAMPLES FOR EASY AND DIFFICULT EXAMPLES, CORRELATION BETWEEN SCORES FROM EACH, AND RATIO OF DIFFERENCE OF MEANS TO ITS PROBABLE ERROR IN GRADES VI-IX, INCLUSIVE, ON ALL FOUR FORMS OF TEST

FORM OF TEST AND SCHOOL GRADE	CORRELATION BETWEEN EASY AND DIFFICULT EXAMPLES	MEAN NUMBER OF INCORRECT EXAMPLES		DIFF. P.E. diff.
		Easy Examples	Difficult Examples	
Grade VI:				
Form A. ....	.84	0.80 ± .048	1.16 ± .077	8.00*
Form B. ....	.88	4.71 ± .211	4.89 ± .215	1.72
Form C. ....	.85	4.13 ± .189	4.42 ± .212	2.59
Form D. ....	.84	3.48 ± .178	3.89 ± .185	3.66
Grade VII:				
Form A. ....	.86	1.42 ± .117	1.89 ± .141	6.43*
Form B. ....	.88	3.79 ± .170	3.93 ± .186	2.26
Form C. ....	.85	3.47 ± .166	3.65 ± .171	3.68
Form D. ....	.84	4.12 ± .175	4.43 ± .184	2.77
Grade VIII:				
Form A. ....	.86	0.96 ± .085	1.24 ± .115	4.45*
Form B. ....	.89	3.64 ± .191	3.66 ± .232	0.14
Form C. ....	.87	3.43 ± .206	3.23 ± .208	1.56†
Form D. ....	.87	3.12 ± .230	3.45 ± .229	2.82
Grade IX:				
Form A. ....	.86	1.33 ± .084	1.73 ± .089	8.50*
Form B. ....	.88	6.15 ± .215	5.96 ± .217	1.79†
Form C. ....	.89	4.67 ± .201	4.72 ± .199	0.53
Form D. ....	.88	5.20 ± .211	5.14 ± .234	0.54†

* The differences marked with asterisks are significant differences.

† In the case of the differences marked with a dagger, the chance difference is in favor of the easy examples.

right of this table shows whether the difference between the means of the two groups is a chance difference or a significant difference. The ratio of the difference of the means must be at least four times its probable error in order for the difference to be significant. Since the single-group method was used in this study, the formula for de-

termining the probable error of the difference of the means was the formula allowing for the correlation between the items compared.¹

Table 3 shows that there is a significant difference between the mean number of incorrect examples on the easy and difficult examples for Form A but only a chance difference between the two groups for Forms B, C, and D. At first glance it seems paradoxical that the difference between the two groups should be a significant difference in each grade when integers are divided, as on Form A, but a chance difference when decimals are divided. This fact is conclusive proof that the placement of the point, not the division process, is the chief source of difficulty in the division of decimals. The example $16 \overline{) 640}$ is much more difficult than the example $3 \overline{) 90}$, but the example $.3 \overline{) 9}$ was incorrectly solved a few more times than was the example $1.6 \overline{) 64}$. From this fact it may be concluded that in the teaching of division of decimals nothing is achieved by giving difficult examples which cannot be achieved by using easy examples. It is better to use easy examples to teach the pupil to understand the principle of placement of the point in the quotient. If the purpose of a practice exercise in division of decimals is to review the difficulties of the division process, the same result may be achieved by giving division of integers.

Table 3 shows the correlation between the scores made on the easy and the difficult examples. Since the length of the test was halved, the reliability coefficient of the test can be found by the use of the Spearman-Brown prophecy formula.

The correlations in Table 3 range from .84 to .89. Substituting these values in the prophecy formula gives reliability indices which range from .91 to .94. The results obtained in this study are greatly increased in value because of the high index of reliability of the test.

SUMMARY AND CONCLUSION

Four forms of a test in division of decimals were given to approximately two hundred pupils in each grade from Grade VI to Grade IX, inclusive, in four school centers. One form measured ability to divide whole numbers; another form measured ability to place the

¹ Henry E. Garrett, *Statistics in Psychology and Education*, p. 219. New York: Longmans, Green & Co., 1937 (second edition).

decimal point in the quotient; another form measured ability to place the quotient figures and to place the point; the fourth form measured ability to do all the things required on the other forms.

The results obtained were as follows: (1) More incorrect examples resulted from the placement of the decimal point in the quotient than from any other cause. (2) The process of division was not a vital factor in determining a pupil's score in division of decimals. (3) The greatest number of incorrect examples in division of decimals occurred when a whole number was divided by a decimal. (4) The mechanical shifting of the decimal point by the use of carets was the cause of a large percentage of incorrect examples. (5) Difficult division examples in division of decimals were no more difficult for the pupil than easy division examples.

From these results the writer has formed two conclusions which should be valuable to the teacher and to the writer of textbooks. First, a caret should not be used to shift the point in division of decimals. The divisor should always be made an integer by multiplying it and the dividend by a power of 10. The sliding technique for finding the position of the point is a short cut for the longer operation of making the divisor a whole number. Because it is a short-cut operation, it usually becomes a mechanical operation that is not understood. In a study of the professional training of 322 teachers, Robinson¹ found that over 70 per cent of them did not know what fundamental principle is illustrated by the following step in a division example $.6 \overline{) \$25.44} = 6 \overline{) \$254.40}$. Second, there is no particular benefit which occurs in division of decimals by supplying difficult examples in the process of division which cannot be achieved by the use of easy examples in division. Therefore the practice exercises in division of decimals should contain easy examples in division. If the difficulties of the division process are to be reviewed, examples in division of integers should be given.

¹ Arthur E. Robinson, *The Professional Education of Elementary Teachers in the Field of Arithmetic*, p. 22. Teachers College Contributions to Education, No. 672. New York: Teachers College, Columbia University, 1936.

CURRENT PRACTICES WITH RESPECT TO PHONETIC ANALYSIS IN THE PRIMARY GRADES

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IN VIEW of marked differences of opinion, even among experts and specialists in reading, with respect to the value of training primary-grade pupils in phonetic analysis, it would not be surprising if classroom practices in this area were exceedingly variable. The data from a recently completed survey involving several hundred primary-grade teachers confirm this expectation. Furthermore, the data obtained in the survey reveal, on the one hand, the extent to which particular practices with respect to phonetic analysis are employed in each primary grade and, on the other hand, the relation between extent of phonetic emphasis and certain professional factors, such as the length of teaching experience and recency of course work in reading.

THE INSTRUMENT USED

The instrument used, which is reproduced later in this article, is comprised of thirty items. The first twenty-eight describe classroom activities relating to phonetic analysis, and the last two have to do with point of view or opinion concerning the place of phonetic analysis in the second term of Grade I. All thirty items, which, despite the different character of the last two, will hereafter be referred to as "activities," are provided with four alternatives, one of which is to be checked for each item.

This check list resulted from the revision and extension of an earlier twenty-five-item check list.¹ Items for the check list were ob-

¹ The original check list was prepared by the writer with the assistance of his colleague, John W. Carr, a specialist in reading, and was used in connection with a study recently published (Donald C. Agnew, *The Effect of Varied Amounts of Phonetic Training on Primary Reading*. Duke University Research Studies in Education, No. 5. Durham, North Carolina: Duke University Press, 1939). In the revision and extension of the

tained from textbooks on the teaching of reading, from manuals which accompany series of readers, and from the experience and observations of the writer and certain of his colleagues.

In order to conserve space, data on the validity and the reliability of the check list are omitted here, but they may be found elsewhere.¹ The best evidence as to validity is to be had from an item-by-item examination of the check list itself. None of the items is spurious, artificial, or unreal—a statement which is attested by the fact that every alternative was selected by some teachers as descriptive of their instructional practices.

SOURCES OF DATA

Check lists were returned by 627 teachers of Grades I, II, and III, representing 13 states and 26 school systems. Of the 627 check lists, 81 were eliminated for one reason or another: some because of incomplete checking, others because of failure to supply information essential to classification, still others because the respondents taught combinations of grades which included pupils above Grade III. The study proper is therefore restricted to 546 papers, of which 431 came from city systems and 115 from rural schools. The number of papers from rural schools is much smaller than had been anticipated. County superintendents and supervisors had been supplied with several hundred blanks but encountered difficulty in distributing them among their teachers and in getting them properly executed and returned.

VARIATIONS IN EMPHASIS ON PHONETIC ANALYSIS

The four alternatives for each item make up a crudely quantitative scale of emphasis, from what may be called extreme emphasis (usually the "a" alternatives) to what amounts to practically complete neglect of phonetic analysis (usually the "d" alternatives). As a consequence, when a teacher selected thirty alternatives, he not

original check list, the writer had the advantage of criticism from L. S. Tireman, of the University of New Mexico, and from James W. Evans, director of research in the St. Joseph, Missouri, public schools, as well as from graduate students in the 1939 summer session at Duke University.

¹ William A. Brownell, "A Method for Quantifying the Extent of Pupils' Learning Experiences," *Journal of Educational Research* (forthcoming issue).

only gave specific details with regard to the instruction in phonetic analysis but also made it possible to assign a "score" on phonetic emphasis.

The value of 1 was arbitrarily given to all alternatives which represent the least emphasis, values of 2 and 3 to alternatives which

TABLE 1

MEDIANS, UPPER AND LOWER QUANTILES, AND INTERQUARTILE RANGE OF SCORES GIVEN ON CHECK LIST OF PHONETIC PRACTICES BY TEACHERS IN CITY AND RURAL SCHOOLS

	Number of Teachers*	Lower Quartile	Median	Upper Quartile	Inter- quartile Range
Grade I:					
City schools.....	152	63	72	83	10.0
Rural schools.....	46	64	74	84	10.0
Both.....	198	63	73	83	10.0
Grade II:					
City schools.....	137	66	76	83	8.5
Rural schools.....	38	70	78	85	7.5
Both.....	175	67	77	84	8.5
Grade III:					
City schools.....	142	69	77	84	7.5
Rural schools.....	31	70	79	85	7.5
Both.....	173	69	78	84	7.5

* In the case of the rural schools, usable records were also obtained from twenty-nine teachers of various combinations of grades. Some use of these scores is made in later parts of this report.

represent intermediate degrees of emphasis, and the value of 4 to alternatives which represent extreme emphasis on phonetic analysis. Thus a teacher who might select all thirty items rated 1 would earn a score of 30, and at the other extreme the teacher who might mark all items rated 4 would earn a score of 120. The actual range in emphasis proved to be from 36 to 110. The medians and quartiles of the scores are given in Table 1.

Three facts of some importance are revealed by these scores. The first is that rural teachers, grade for grade, seem to emphasize phonetic analysis more than do city teachers. While none of the differ-

ences is statistically reliable, an argument for the authenticity of the differences can be advanced from the consistency of the data.

The second fact is that there is an increase in emphasis from grade to grade. In both city and rural schools the largest amount of increase occurs between Grades I and II.¹ The finding that more attention is given phonetic analysis in Grade II than in Grade I probably agrees with general knowledge; the finding that there is no decrease in emphasis, and perhaps an increase, in Grade III is probably more surprising.

The third fact of importance revealed by the distribution of the scores is the large overlapping from grade to grade. Most of the third-grade teachers could transfer to Grade I and continue to stress phonetic analysis about as they had before without attracting attention. This statement refers, of course, only to gross amounts of emphasis and does not preclude the possibility of large differences from grade to grade in the pattern of phonetic activities which are stressed.

EXTENT TO WHICH SPECIFIC ACTIVITIES ARE STRESSED

Table 2, the principal exhibit of this report, shows the frequencies with which the various alternatives of the thirty items were checked by 431 city teachers and by 115 rural teachers. The figures for the latter are probably little more than suggestive since the numbers involved are small. For the city teachers, on the other hand, the figures should be fairly trustworthy.

The interested reader can for himself construct a picture of phonetic practices in each grade by noting those alternatives which were marked most often by teachers. For example, Items 1 and 2 show that teachers have a "few" or a "rather large number" of devices which they have found useful, but, taken together, these devices and practices hardly constitute what would be called a system of instruction. In their reading they note mention of new methods and devices, particularly all which look promising. According to Item 4,

¹ The critical ratios for the city schools are: between medians of Grade II and Grade I, 2.9; Grade III and Grade I, 3.9; Grade III and Grade II, 0.8. The critical ratios for the rural schools are 2.1 and lower, probably reflecting the influence of the small populations. The critical ratios for the city and rural schools combined are: 3.7, 4.4, and 1.5, in the order given for the city schools.

TABLE 2
NUMBER OF TEACHERS SELECTING VARIOUS ALTERNATIVES, BY
GRADES AND TYPES OF SCHOOLS

ITEM, WITH ALTERNATIVES	CITY SCHOOLS			RURAL SCHOOLS		
	Grade I	Grade II	Grade III	Grade I	Grade II	Grade III
1. With respect to phonetic training, I—						
a) Follow a standard system or manual.	30	24	15	12	8	2
b) Use a complete system of my own.	17	16	25	2	4	7
c) Follow well-defined practices which, however, can hardly be called a system.	93	93	91	31	25	19
d) Make no attempt to follow any system, my own or any one else's.	10	4	11	1	1	3
No answer.	2					
2. With regard to devices for teaching phonetic analysis, I—						
a) Have collected as large a number as possible.	21	10	13	4	2	3
b) Have a rather large number which I have found useful.	43	47	42	19	16	11
c) Have only a few that seem to be of value.	67	67	77	21	19	13
d) Make no attempt to find or to keep a record of devices I learn about.	20	13	10	2	1	4
No answer.	1					
3. So far as the literature on reading (books and articles) is concerned, I—						
a) Am always on the alert for new methods of teaching phonetic analysis.	70	68	59	25	17	16
b) Note only those that seem to be promising.	68	62	77	17	19	11
c) Am not usually much interested in trying methods which are suggested.	8	3	3	3	2	2
d) Am scarcely likely even to notice the report of such methods.	5	4	3	1		2
No answer.	1					
4. I give instruction in phonetic analysis—						
a) To the class as a whole.	85	82	69	27	25	18
b) To groups or sections of the class which seem to need such instruction.	51	39	58	17	11	9
c) Individually, as needed.	10	14	15	2	2	2
d) Not at all.	5	2				2
No answer.	1					
5. With regard to scheduling time for teaching phonics, I—						
a) Set aside a period every day, apart from reading, for such instruction.	57	52	34	16	11	7
b) Occasionally have such separate periods.	44	49	44	15	9	11
c) Give the training incidentally in the regular reading period.	46	35	64	15	18	12
d) Make no provision whatsoever for such training.	5	1				1
6. One form of "ear-training" consists in giving children sounds and having them put the sounds together to make words. I do this—						
a) Regularly.	18	24	18	6	8	4
b) Frequently.	45	43	54	9	13	15
c) Occasionally.	46	43	53	17	15	9
d) Never, or practically never.	42	27	17	14	2	3
No answer.	1					

TABLE 2—Continued

ITEM, WITH ALTERNATIVES	CITY SCHOOLS			RURAL SCHOOLS		
	Grade I	Grade II	Grade III	Grade I	Grade II	Grade III
7. Another kind of "ear-training" is to have some child make the separate sounds and then have some other child pronounce the whole word. I do this—						
a) Regularly.....	6	4	3	4	2	3
b) Frequently.....	18	20	25	5	7	6
c) Occasionally.....	32	38	52	16	11	16
d) Never, or practically never.....	93	75	62	21	17	6
No answer.....	3				1	
8. With respect to the separate consonant sounds, I teach children—						
a) All of them.....	89	78	67	25	21	11
b) Not over two-thirds of them.....	19	26	26	4	8	6
c) Not over one-third of them.....	22	16	28	9	5	7
d) None at all as such.....	19	16	19	8	4	5
No answer.....	3	1	2			2
9. With respect to consonant blends (<i>tr</i> , <i>bl</i> , <i>st</i> , etc.), I teach children—						
a) A great many.....	20	28	33	6	10	8
b) All the common ones.....	53	70	74	21	19	13
c) Only a few of the commonest.....	62	32	28	14	6	9
d) None at all as such.....	17	6	7	5	3	1
No answer.....		1				
10. With respect to the separate vowel sounds, I teach children—						
a) All the sounds of all the vowels.....	12	20	32	9	9	3
b) The commonest sounds of all the vowels.....	64	74	65	17	20	21
c) Only a few of the commonest vowel sounds.....	48	33	33	14	8	5
d) None at all as such.....	28	9	12	6	1	2
No answer.....		1				
11. With respect to suffixes (<i>-ed</i> , <i>-ion</i> , etc.), I teach children—						
a) All of them possible.....	12	28	40	6	8	12
b) A large number.....	14	25	41	7	10	9
c) Just a few of the commonest.....	102	73	55	26	18	9
d) None at all as such.....	24	10	6	7	2	1
No answer.....		1				
12. With respect to the prefixes (<i>con-</i> , <i>in-</i> , etc.), I teach children—						
a) All of them possible.....	7	15	17	5	5	9
b) A large number.....	11	23	45	4	9	11
c) Just a few of the commonest.....	60	70	68	18	19	10
d) None at all as such.....	71	29	12	19	5	1
No answer.....	3					
13. With respect to phonograms, I teach—						
a) A very large number.....	10	13	15	5	6	2
b) All the common ones.....	51	66	65	19	18	9
c) Only a very few.....	45	21	41	11	7	10
d) None at all as such.....	35	30	12	10	6	7
No answer.....	11	7	9	1	1	3
14. With respect to "sound families," I have my pupils—						
a) Identify all words possible by this device.....	37	48	43	12	16	14
b) Note the sound resemblances of a large number of words.....	65	63	73	21	16	14
c) Know only a few "sound families".....	31	17	17	11	3	2
d) Pay no attention to such "families".....	17	9	8	2	3	1
No answer.....	2		1			

TABLE 2—Continued

ITEM, WITH ALTERNATIVES	CITY SCHOOLS			RURAL SCHOOLS		
	Grade I	Grade II	Grade III	Grade I	Grade II	Grade III
15. With respect to "blending" component sounds, I provide—						
a) Regular and systematic training.....	13	10	12	4	3	.....
b) A rather large amount of training whether systematic or not.....	40	40	57	13	8	15
c) Only occasional practice.....	58	63	61	15	19	10
d) No training or practice at all.....	30	19	9	12	8	4
No answer.....	11	5	3	2	.....	2
16. I give practice in sounding nonsense syllables and words phonetically—						
a) Regularly and frequently.....	5	3	7	1	2	1
b) Rather frequently.....	24	14	12	7	5	2
c) Occasionally.....	38	41	46	12	10	14
d) Never, or practically never.....	79	72	73	25	17	14
No answer.....	6	7	4	1	4	.....
17. I provide practice on phonograms and families by means of flashcards and rapid black-board exercises—						
a) Regularly and frequently.....	24	22	17	9	8	3
b) Very often.....	54	55	54	17	14	10
c) Seldom.....	34	29	39	11	7	10
d) Never.....	39	30	29	9	7	7
No answer.....	1	1	3	.....	2	1
18. I review the lessons taught in phonics by sounding familiar words, phonograms, etc.—						
a) Regularly and systematically.....	25	17	15	10	8	1
b) Frequently.....	70	83	79	24	24	19
c) Rarely.....	37	23	34	7	2	9
d) Never.....	20	14	12	5	3	1
No answer.....	.....	.....	2	.....	1	1
19. I require the sounding of the individual letters or combinations in new words encountered in reading—						
a) Regularly before the word is pronounced for the first time.....	7	11	17	1	3	2
b) Regularly after the word has been pronounced as a whole.....	12	4	9	6	7	5
c) Not for all words, but only as needed.....	90	104	111	31	26	21
d) Not at all.....	41	18	3	8	2	3
No answer.....	2	.....	2	.....	.....	.....
20. With respect to rules for pronunciation, I—						
a) Teach a large number and require memorization.....	5	2	2	2	1	2
b) Teach only three or four and require memorization.....	6	9	15	2	4	1
c) Point out the facts covered by the rules but require no formulation or memorization.....	48	66	99	24	23	18
d) Pay no attention to them at all as such.....	90	59	26	18	10	10
No answer.....	3	1	.....	.....	.....	.....
21. Children may be taught to associate the sounds of various letters with the appropriate symbols by telling them stories (for example, the sound of s with a story about snakes). I use this device—						
a) Regularly.....	28	9	6	8	7	2
b) Frequently.....	33	30	30	10	5	4
c) Occasionally.....	59	53	58	16	18	13
d) Never.....	32	44	48	12	8	12
No answer.....	.....	1	.....	.....	.....	.....

TABLE 2—Continued

ITEM, WITH ALTERNATIVES	CITY SCHOOLS			RURAL SCHOOLS		
	Grade I	Grade II	Grade III	Grade I	Grade II	Grade III
22. I use rhymes and rhyming as means of teaching words—						
a) A great deal.....	13	7	17	4	5	5
b) Considerably.....	28	22	14	9	5	2
c) Somewhat.....	74	54	57	17	14	16
d) Not at all.....	36	53	53	16	14	8
No answer.....	1	1	1			
23. When a word is mispronounced, I advise the child <i>first</i> to—						
a) Sound out the separate phonetic elements	27	35	44	7	12	9
b) Try to get the pronunciation by noting sound resemblances with familiar words.	55	55	64	24	15	15
c) Try to get the pronunciation from the probable meaning of the word in context	42	35	27	9	6	5
d) Try again, or ask me (or someone else) for the correct pronunciation.....	25	12	6	4	5	2
No answer.....	3		1	2		
24. When new words appear in reading, I advise the child <i>first</i> to—						
a) Sound the word by syllables or other sound elements.....	32	40	51	8	16	15
b) Try to find sound resemblances with familiar words.....	74	63	59	25	15	11
c) Guess at the pronunciation, if the meaning can be secured from the context.....	29	26	22	8	5	4
d) Guess at the meaning and go on, or ask me for the pronunciation.....	16	7	10	5	2	1
No answer.....	1	1				
25. In selecting or in recommending reading books or other reading materials, I would—						
a) Prefer those in which, to the fullest possible extent, only phonetic words are used	9	6	11	8	3	2
b) Want nearly all words to be phonetic....	16	15	26	5	8	4
c) Pay only limited attention to the phonetic quality of the vocabulary.....	65	57	62	17	17	13
d) Make suggestions without regard to the number of phonetic words.....	59	54	38	16	9	11
No answer.....	3	5	5		1	1
26. My practice with regard to the use of "context cues" in new words is—						
a) To encourage children to use such cues to the fullest extent possible.....	84	67	74	22	19	11
b) To permit the use of such cues.....	54	54	50	18	14	10
c) To pay no attention to teaching this device or practice.....	8	7	6	5	4	8
d) To discourage the practice as much as possible.....	2	3	6			2
No answer.....	4	6	6	1	1	
27. I train my pupils to—						
a) Perceive or envisage words as wholes or configurations.....	102	68	46	27	18	8
b) Build up words from smaller visual units.	29	49	65	14	16	7
c) Build up words largely from sound, without regard for any particular type of phonetic synthesis.....	6	3	10	1	2	5
d) Sound out the letters and small sound units separately and then combine them.	12	15	19	3	2	9
No answer.....	3	2	2	1		2

TABLE 2—*Continued*

ITEM, WITH ALTERNATIVES	CITY SCHOOLS			RURAL SCHOOLS		
	Grade I	Grade II	Grade III	Grade I	Grade II	Grade III
28. With regard to sound units in new words, I—						
a) Train children to be on the alert for such units	72	75	78	21	24	14
b) Permit them to use these units if they find them	53	44	50	18	10	10
c) Take no definite position either for or against the use of these units	23	16	12	7	4	6
d) Discourage this method of attacking words	3	1	1	.....	.....	.....
No answer	1	1	1	.....	.....	1
29. In my opinion, children in the second term of Grade I should receive phonetic training—						
a) Before they have learned any words as "sight" words	2	7	5	3	4	3
b) As soon as they have a "sight" vocabulary of 50-100 words	78	67	79	27	19	17
c) Whenever, and only whenever, needed . .	68	56	46	16	13	10
d) Not at all	2	5	2	.....	1	.....
No answer	2	2	10	.....	1	1
30. In my opinion, children in the second term of Grade I should—						
a) From the first have their attention directed to sound rather than thought	4	2	5	1	.....	2
b) From the first have their attention directed to thought	105	66	54	24	13	7
c) Have equal and concomitant training on both sound and thought	34	54	69	18	22	16
d) Be taught in any way the teacher prefers, since the order as between (a) and (b) above is immaterial	6	10	8	2	2	5
No answer	3	5	6	1	1	1

they usually give instruction in phonetic analysis to the whole class, though there is also a marked tendency to section pupils for this kind of work.

Differences in the pattern of emphasis on phonetic analysis from grade to grade can also be easily determined from Table 2. For example, with regard to Activities 1, 2, 3, 4, 5, 6, 8, 14, 15, 17, 19, 23, 24, 25, 28, and 29, second-grade teachers do about the same as first-grade teachers. There is a possibility of greater stress on phonetic analysis in Grade II than in Grade I with respect to Activities 6, 7, 20, 26, and 30, which have to do with "ear-training" (6 and 7), rules for pronunciation, use of context cues, and attention to thought rather

than to sound. There is more probability of added emphasis in Grade II in the case of Activities 9, 10, 11, 12, 13, and 27. Such descriptions of all practices within grades and of changes from grade to grade are not presented here because of space limitations.

FACTORS INFLUENCING PRACTICES WITH RESPECT TO PHONETIC ACTIVITIES

Accompanying the check lists furnished to teachers was a series of questions designed to facilitate various types of tabulation. The purpose of these tabulations was to determine by simple procedures the relations between certain factors and instruction in phonetic analysis. Two of these questions disclosed (1) the kind of school in which the teacher taught, as city or rural, and (2) the grade taught. Both of these factors have been considered in connection with Tables 1 and 2. The other questions were concerned with (3) the teacher's educational philosophy, (4) the length of teaching experience, (5) the recency of his last summer-session course work in the field of reading, and (6) his understanding of the local supervisory policy with respect to emphasis on phonetic analysis. In the discussion of these factors, the figures for city and rural teachers are combined.

It was expected that the extent of phonetic emphasis would vary with educational philosophy, being highest for "conservative" teachers, lowest for "progressive" teachers, and intermediate for "middle-of-the-road" teachers. Such did not prove to be the case. The findings were interpreted to mean either that there is no real relation between educational philosophy and the gross amount of emphasis given phonetic analysis or that the 514 teachers who responded did not or could not correctly classify themselves among the three categories from "progressive" to "conservative."¹ It may be that the terms "progressive" and "conservative" are so variable in their meaning in different sections and communities that no uniform basis of classification could operate.

A total of 503 teachers from city and rural schools reported the length of their teaching experience in terms of years. These teachers

¹ One interesting fact is the relatively small number of respondents who were willing to classify themselves as "conservative." In none of the three grades did such teachers constitute over 17 per cent of the total.

were classified into six experience groups: 1-4 years, 5-8 years, 9-12 years, 13-16 years, 17-20 years, and 21 years and over. The median phonetic-emphasis scores for these groups were: 77, 76, 76, 78, 76, and 76, respectively. The expectation that teachers with longer experience would stress phonetic analysis to a greater extent was not borne out.

The year of their most recent summer-session work in reading was stated by 547 teachers. It was assumed that this measure might indicate varying degrees of familiarity with modern conceptions of reading instruction, but no relationship was found between recency of course work and the amount of emphasis on phonetic analysis.

Teachers were asked to indicate the local supervisory policy with respect to phonetic activities in response to the question: "To the best of your ability, classify your school's supervisory policy as (a) requires regular and systematic phonetic training; (b) favors some systematic phonetic training (but not necessarily regular); (c) favors purely incidental phonetic training; (d) no stated policy—or official indifference in the matter." It is to be noted that teachers were to describe the policy of their supervisors *as they understood it*. Whether they correctly classified the policy is beside the point; they at least identified the conception of that policy under which they thought they were to teach, and for the present purpose it is this conception which is important.¹

The group medians were found to reveal a reliable tendency for the amount of phonetic emphasis to agree with supervisory policy: the more local policy required regularity of systematic instruction, the greater the emphasis. This relation holds for the first three policies, for which the medians are 82, 78, and 69. When the local policy was silent or indifferent in the matter of phonetic analysis, the teachers apparently did about as they wished (not very much, the median

¹ It is not without interest to note that more than half the teachers (260 out of 502 for the three grades combined) marked the item: "Favors some systematic phonetic training (but not necessarily regular)." The next most common policy was no policy at all (118 teachers). The policy of requiring regular and systematic training (the extreme of emphasis) and the policy of favoring purely incidental training (the extreme of non-emphasis) were about equally common (65 and 59 teachers, respectively). Moreover, within each grade the most common policy was to favor some systematic training (but not necessarily regular), and the next most common was no stated policy.

being 69), but the extent of their emphasis was more variable than when the policy was stated. This trend for the grades combined was noted also when the grades were separately considered.

CONCLUDING STATEMENT

The purpose of this study should be kept in mind as one reads and interprets the facts which have been presented. The purpose was to ascertain present practice, not best practice, with regard to phonetic activities in Grades I, II, and III. An entirely different kind of research would have to be organized to determine optimal practice. This study shows only what is now being done in the primary grades; it is a survey of current status. It is sometimes important to know where we stand with respect to practice, and sometimes, too, this knowledge functions in initiating research of a more crucial character. It is the writer's hope that this study may make such a contribution.

A MUSIC PROGRAM FOR ELEMENTARY-SCHOOL TEACHERS IN TRAINING

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NEED FOR TRAINING TEACHERS IN MUSIC

SINCE more elementary-school music is taught by the regular classroom teacher than by the special music teacher, it naturally follows that the elementary-school teacher should be trained to teach music. Of all the course requirements established by state departments of education, music is among those receiving the least emphasis in curriculums for teacher education.

In the name of culture it is often argued that the elementary-school teacher needs algebra, German, literature, and other strictly academic subjects. Of course these subjects are related to the job of teaching; yet what subjects could be more important than music, art, physical and health education? In curriculums for the training of elementary-school teachers the latter subjects are unduly minimized in importance.

What is the task of teacher-education institutions? First and foremost, they are professional schools. Their sole objective is to train elementary-school and secondary-school teachers, not academicians. If the job is the preparation of primary-grade and elementary-school teachers, the curriculum should more adequately consider the special fields. In most universities, colleges, and normal schools throughout the country, one year or less is offered as preparatory training in music for these teachers. What frivolity to attempt in such an anemic fashion to qualify a lay student for teaching music!

What does the administrator hiring a teacher for the primary and intermediate grades require? In the primary grades there must be insistence on the ability of the candidate to play the piano, handle game and rhythmic activities, and develop a suitable social program

for children; in the higher grades the ability to handle music effectively is a tool that will receive more usage than a knowledge of German or statistical methods. The future of American musical art is in the hands of these teachers. Yet little recognition is given to this fact in the course requirements prescribed for the preparation of such teachers.

In New York State one course of thirty-six weeks is required by teacher-education institutions as music preparation for elementary-school teachers. A recent survey made by the writer showed that, of the Freshmen entering six New York State normal schools in 1940-41, more than half had received no regular music instruction in the grades. These people take but one omnibus course to fill in their musical deficiencies. The thesis ought to be that the less equipped the student, the more likelihood there is of a need for training in music.

MUSIC COURSE AT OSWEGO

An attempt has been made at the State Normal School in Oswego to build a course which will effectively serve its students. Although the present course does not completely prepare the students, no one-year course can do so.

This course is divided into seven sections: (1) keyboard experiences; (2) song-singing; (3) rudiments of music; (4) music appreciation; (5) community and school music leadership; (6) techniques for teaching music; and (7) motivation projects.

Keyboard experiences.—The keyboard approach is the basis for music education at the primary- and the intermediate-grade levels. By learning to play tonic, dominant, subdominant, and dominant-seventh chords, the student teachers have many musical experiences in one process. They employ the chords in the playing of accompaniments for children's songs.¹ In one process the students learn rhythm, song-singing, some musical theory, ear-training, and some knowledge of the keyboard—all in a pleasurable manner. Because most lay teachers are vocally self-conscious, the keyboard approach lessens the emphasis on the personal element. It is a way of getting

¹ Over 55 per cent of the 1940 Freshman students in the six New York State normal schools already referred to have had no piano training.

conscious music experiences while submerging in subconsciousness any personality and self-conscious reactions. This work is aimed at the development of the ability to play at least chordal accompaniments for children's songs.

Song-singing.—The song-singing phase of this course is the basis for all music work in the grades. During each class period some time is devoted to vocalization, tone production, breathing, and learning how to sing intelligently all types of songs, particularly children's songs. All persons can learn to sing pleasingly for children. The students are instructed as to the vocal demands that should be made of children, grade by grade. Good song-singing is good ear-training. Particularly pleasing children's songs are collected for use in practice and for teaching later.

Rudiments of music.—The amount of time that should be spent in teaching the rudiments of music is a moot question. It can be answered by asking what knowledge will be required of the teacher in teaching music in Grades I-VIII. The student must be able to read intelligently the symbols on the music page if he is to be able to teach new songs when he becomes a teacher in service. At Oswego the students are also familiarized with the various methods of reading music. We teach no definite system; our aim is to prepare teachers to handle musical situations.

Music appreciation.—Music appreciation comes from an understanding of music which generates intellectual, physical, emotional, and aesthetic responses. A person's enjoyment of music will be in proportion to the influence of these four factors. Of course the non-professional music teacher cannot attain, in a semester or two, sufficient knowledge for complete understanding of music. Much can be learned, however, through proper instructional facilities. Time is spent in directed listening. A music-curriculum laboratory is maintained for the students in order that they may peruse materials in fields related to music. Students are urged to collect stories and literature pertaining to music-teaching at the elementary-school level, for they must have some materials of their own when they start teaching.

Community and school music leadership.—Techniques for conducting community singing are taught for the purpose of equipping

each student to fill a functional place in school and community music. The rudiments of conducting as related to classroom, assembly, and community singing are taught. Students derive experience from classroom laboratory work and in practice-teaching centers. Many who have special musical ability are sent into the city of Oswego to gain additional experience.

Techniques for teaching music.—Methods and materials for teaching music are given to the students in mimeographed form. Some classroom discussion and demonstration are devoted to this work. A bibliography of source materials for elementary-school music is also made available. In the music-curriculum laboratory the students study and evaluate music-teaching materials for primary and intermediate grades. It is there that they study representative state and local courses of study, examine songbooks, listen to selected phonograph recordings, collect community-sing suggestions, and gather additional aids for teaching music.

During the third nine-week period of the thirty-six-week course, the class in elementary-school music is conducted on a schoolroom basis. The class is carried on as a first, a second, or a third grade, each student being given opportunity for teaching his fellow-students as though a regular teaching situation existed. Children from the demonstration school are brought in from time to time to afford the college students a firsthand study of the musical, disciplinary, and psychological problems involved in teaching music. Our desire is to deal with real teaching situations at all times. The students will have to teach music, and our aim is to present only usable techniques and materials.

Motivation projects.—As a culmination to the work of each semester, the student is required to develop a project related to primary- or intermediate-grade music. Since many of the students will eventually teach in rural or semirural communities, practical projects are urged. Each student is required to procure on uniform paper fifty songs of challenging musical interest for children. The students are urged to discuss these songs with the instructor. In addition to songs, fifty attractive rhythmic piano pieces are selected, representing the march, the waltz, the minuet, and other dance forms. Throughout the year the students rehearse and memorize, with

critical emphasis on musical quality and performance, fifty children's songs. The elementary-school teacher must know how to present song material attractively because intelligent reception results from interesting presentations.

CONCLUSION

The importance to be attached to the music-training program in teacher-training institutions cannot be overestimated. The future love for good music possessed by boys and girls is primarily in the hands of the regular classroom teacher, who necessarily has the layman's approach. The music supervisor is the specialist who teaches for perfection; the lay student participates in music for the sake of enjoyment. Professionalization has done much to retard the development of music appreciation in this country. It is impossible to over-evaluate the importance of the elementary-school teacher in American music education. In his care is invested the future of music.

SELECTED REFERENCES ON ELEMENTARY- SCHOOL INSTRUCTION

III. THE SUBJECT FIELDS—CONTINUED



THIS list of references is the third of the annual series relating to instruction at the elementary-school level. The first list contains items on the curriculum, methods of teaching and study, and supervision. The second list contains items grouped under the following subject fields: reading, English, spelling, handwriting, the social sciences, and geography. The present list covers the remaining subject fields at the elementary-school level and is the last of the series of three dealing with elementary-school instruction.

ARITHMETIC

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The following references were selected from articles and books published from July, 1940, to June, 1941. They contained both critical and research materials.

608. ADAMS, FAYE GREENE. "Where Goes Arithmetic?" *California Journal of Elementary Education*, IX (November, 1940), 126-28.

A brief discussion of six recent outstanding changes in arithmetic.

609. *Arithmetic in General Education*. The Final Report of the National Council Committee on Arithmetic. Sixteenth Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1941.

This yearbook is composed of articles by a number of specialists. Guy T. Buswell, in "The Function of Subject Matter in Relation to Personality" (pp. 8-19), presents a critical discussion of the relation of arithmetic to personality development. Ben A. Sueltz, in "Curriculum Problems—Grade Placement" (pp. 20-44), discusses grade placement in arithmetic. C. L. Thiele, in "Arithmetic in the Early Grades: From the Point of View of Interrelationships in the Number System" (pp. 45-79), gives many practical recommendations and illustrations. Harry G. Wheat, in "A Theory of Instruction for the Middle

Grades" (pp. 80-118), discusses five problems in teaching arithmetic in these grades. Harry E. Benz, in "Arithmetic in the Senior High School" (pp. 119-39), presents a discussion of possible extensions of arithmetic into the high school. Leo J. Brueckner, writing on "The Social Phase of Arithmetic Instruction" (pp. 140-56), presents concrete ways to socialize the teaching of arithmetic and discusses the relation between mathematical and social phases of arithmetic. Irene Sauble, in "Enrichment of the Arithmetic Course" (pp. 157-95), illustrates and discusses concrete materials for enriching the teaching of arithmetic. B. R. Buckingham, in "What Becomes of Drill?" (pp. 196-224), shows how the older concept of drill may evolve into newer and more useful methods of practice. William A. Brownell, in "The Evaluation of Learning in Arithmetic" (pp. 225-67), discusses problems of evaluation and presents concrete illustrations of new and superior devices for testing. T. R. McConnell, in "Recent Trends in Learning Theory: Their Application to the Psychology of Arithmetic" (pp. 268-89), gives an excellent theoretical discussion of the psychology of learning arithmetic. F. Lynwood Wren, in "Questions for the Teacher of Arithmetic" (pp. 290-303), lists questions to be used by teachers of arithmetic in self-evaluation and improvement. William A. Brownell and Foster E. Grossnickle, in "The Interpretation of Research" (pp. 304-17), point out significant factors to be noted by the critical reader. Lorena B. Stretch, in "One Hundred Selected Research Studies" (pp. 318-27), gives a selected list of studies with which competent students of the teaching of arithmetic should be familiar. E. A. Bond, in "One Hundred Selected References" (pp. 328-35), presents a selected and classified bibliography on arithmetic for teachers and study groups.

610. BAXTER, BERNICE. "Arithmetic in the Elementary School Curriculum," *California Journal of Elementary Education*, IX (November, 1940), 97-105.

A useful general discussion for teachers of arithmetic in the elementary school.

611. BECKER, ANGELINE L. "Remedial Work in the Addition of Common Fractions," *California Journal of Elementary Education*, IX (August, 1940), 43-47.

Gives data on types of errors in fractions in a sixth-grade class. Proposes four ways to improve the teaching of fractions.

612. BERGLUND-GRAY, GUNBORG, and YOUNG, R. V. "The Effect of Process Sequence on the Interpretation of Two-Step Problems in Arithmetic," *Journal of Educational Research*, XXXIV (September, 1940), 21-29.

A study of the relative difficulty of various process combinations in arithmetic. Finds that the sequence of processes affects the difficulty of solution; for example, the subtraction-addition combination is more difficult than the addition-subtraction combination.

613. BRUECKNER, LEO J. "The Development of Readiness Tests in Arithmetic," *Journal of Educational Research*, XXXIV (September, 1940), 15-20.

Discusses and illustrates procedures employed in devising and validating a readiness test.

614. *Children's Interests: Elementary School Level*. Twelfth Yearbook Published Annually by the California Elementary School Principals' Association, Vol. XII. Oakland, California: California Elementary School Principals' Association (Sarah L. Young, % Parker School), 1940.

Three articles in this yearbook are of particular importance: Clark N. Robinson, in "Children's Arithmetic Needs Arising in the Home Environment" (pp. 54-59), gives data on home situations that lead to out-of-school problems in arithmetic. Mary Marjorie Culver, in "A Study of Children's Interest in Arithmetic" (pp. 60-70), presents data on children's arithmetical interests at different age levels, as well as excellent concrete suggestions for elementary-school teachers. Roy DeVerl Willey, in "Social Situations Which Lead the Elementary School Pupil to Natural Arithmetical Experiences" (pp. 70-79), presents data gathered by seventy-seven classroom teachers on arithmetical situations arising in school but outside the arithmetic class; tables and graphs are included.

615. DAHLE, CASPER O. "The Verbal Thought and Overt Behavior of Children during Their Learning of Long Division," *Journal of Experimental Education*, IX (September, 1940), 1-8.

An elaborate study of the learning process, with incidental but important findings concerning arithmetic.

616. DEANS, EDWINA. "The Contribution of Grouping to Number Development," *Childhood Education*, XVII (March, 1941), 307-10.

A stimulating article dealing with the problem of relating concrete and abstract number experiences in the primary grades.

617. GROSSNICKLE, FOSTER E. "Comparison of Achievement of Pupils Who Are Good and Poor in Learning Division with a Two-Figure Divisor," *Journal of Educational Research*, XXXIV (January, 1941), 346-51.

Using data from ninety-four children, the author finds no quantitative difference between the two groups either in native ability or in eventual achievement.

618. SMITH, HENRY LESTER, and EATON, MERRILL T. *The Teaching of Arithmetic to Low-Ability Students in the Elementary Schools*. Bulletin of the School of Education, Indiana University, Vol. XVI, No. 6. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University, 1940. Pp. 130.

An extensive study of teaching low-ability pupils. Deals with testing, homogeneous grouping, individual differences, and methods of teaching.

619. STADTLANDER, ELIZABETH. "Arithmetic Theories, a State Course of Study, and Textbooks," *Elementary School Journal*, XLI (February, 1941), 438-53.

Analyzes five textbooks in relation to drill theory, social-utility theory, incidental theory, and meaning theory.

620. *Studies in Arithmetic*, Vol. II. Publications of the Scottish Council for Research in Education, XVIII. London: University of London Press, Ltd., 1941. Pp. xxvi+218.

The following studies are included in this publication: James Porter, in "Vocabulary of Arithmetic" (pp. 1-19), presents an extensive study in Scotland based on a modified form of the Buswell-John vocabulary test and includes complete tabular data. John Murray, in "The Relative Merits of Methods of Teaching Subtraction" (pp. 21-70), finds the equal-additions method best and the decomposition method poorest after an elaborate study of different methods of teaching subtraction. Isabella H. Mackay, in "The Zero in Elementary Arithmetic" (pp. 71-102), gives new data on difficulties caused by zero. James M. Thyne, in "Types of Errors in the Basic Number Facts" (pp. 103-33), analyzes and classifies errors in the four fundamental operations based on the Schonell Diagnostic Arithmetic Tests. Philip A. D. Gardner, in "An Analysis of Errors in Fractions" (pp. 135-82), presents data from Scottish schools to parallel Brueckner's data on errors in fractions. William Curr, in "Placement of Topics in Arithmetic" (pp. 183-218), presents new data on grade placement and discusses them in relation to recommendations of the Committee of Seven and to Brownell's criticisms of these recommendations.

621. SUELTZ, BEN A. "Recent Trends in Arithmetic," *Mathematics Teacher*, XXXIII (October, 1940), 270-75.

Summarizes and discusses several significant changes in the teaching of arithmetic.

622. TINGLEY, E. M. "Base Eight Arithmetic and Money," *School Science and Mathematics*, XL (June, 1940), 503-8.

An argument for a number system based on eight instead of ten.

SCIENCE

WARREN W. McSPADDEN

American Society for the Prevention of Cruelty to Animals
New York City

This list of selected references on science in the elementary school includes articles, brochures, research studies, and books published between June, 1940, and June, 1941.

623. BATHURST, EFFIE G. *Teaching Conservation in Elementary Schools*. United States Office of Education Bulletin No. 14, 1938. Pp. vi+126.

In view of the emphasis that is being placed on conservation in the elementary school, this bulletin should prove helpful to teachers.

624. BLOUGH, GLENN O. "How Do We Use Fire and Fuels?" *Instructor*, XLIX (October, 1940), 45-54; "How Does the Surface of the Earth Change?"

ibid., L (January, 1941), 45-54; "How Is Electricity Important to Us?"

ibid., L (April, 1941), 39-48.

Presents three illustrated units in elementary science, with problems and suggested procedures for primary, middle, and upper grades.

625. BOND, J. EDWARD. "Building a Terrarium," *Instructor*, XLIX (October, 1940), 36, 74.

An illustrated article on how to construct a terrarium, what to put in it, and how to care for it.

626. CORD, VIVIAN I. "The Sun: A Unit for the First Grade," *Science Education*, XXIV (November, 1940), 309-12.

Contains practical suggestions for teaching a unit on the sun.

627. CRAIG, GERALD S. *Science for the Elementary-School Teacher*. Boston: Ginn & Co., 1940. Pp. viii+552.

Teachers have long needed a single source containing basic information in each of the several major content areas in elementary-school science. This volume will meet this need to a great extent. The five parts of the book consider, respectively, the point of view of elementary-school science, "The Earth and the Universe," "The Life of the Earth," "The Energy of the Universe," and a suggested sequence of meanings in science around which a course of study may be built.

628. FLYNN, HARRY E., and PERKINS, FLOYD E. *Conservation of the Nation's Resources*. New York: Macmillan Co., 1941. Pp. x+386.

Conservation problems dealing with water, natural vegetation, wild-life, minerals, etc., are made exceptionally clear, as are the interrelations of various resources. Includes good illustrations and an up-to-date list of films on conservation and where to get them.

629. GOLDEN, EMMA. "A Unit on an Aquarium," *Instructor*, L (December, 1940), 47, 70.

A unit for the primary grades with much practical information for teachers.

630. HUEY, EDWARD G. *What Makes the Wheels Go Round*. New York: Reynal & Hitchcock, Inc., 1940. Pp. xii+176.

One of the best attempts to simplify physics, and yet retain its underlying principles, that this compiler has seen.

631. KNOX, WARREN W.; STONE, GEORGE K.; MEISTER, MORRIS; WHEATLEY, DOROTHY E.; and NOBLE, DORIS. *The Wonderworld of Science: Book IV*, pp. 224; *Book V*, pp. 256; *Book VI*, pp. 288. New York: Charles Scribner's Sons, 1941.

Textbooks for Grades IV, V, and VI in the new *Wonderworld* series for elementary-school science.

632. LEWIS, INEZ JOHNSON. "Elementary Science Curriculum," *Grade Teacher*, LVIII (September, 1940), 62-63, 73, 77.

Outlines objectives and content of elementary science in the upper grades. Includes suggestions for a number of units.

633. MITCHELL, LUCY SPRAGUE; BOWMAN, ELEANOR; and PHELPS, MARY. *My Country 'Tis of Thee*. New York: Macmillan Co., 1940. Pp. xvi+336. Especially recommended for teachers in dealing with the use and abuse of our natural resources.
634. PALMER, E. LAURENCE; GORDON, EVA L.; SCHMIDT, VICTOR E.; and THURBER, WALTER. "Elementary School Field Experiences in Natural Science," *Cornell Rural School Leaflet*, XXXIV (September, 1940), 5-48. An unusually valuable issue of the *Leaflet* describing a variety of field excursions. Some of the trips suggested are to investigate a killing frost, sounds in autumn, an electric power transmission line, a road cut, an unpainted house, and a junk pile. Things to do and follow-up activities are also included.
635. PARKER, BERTHA MORRIS. The Basic Science Education Series: *The Air about Us*; *Animal Travels* (by Bertha Morris Parker and Thomas Park); *Animals of Yesterday* (checked for scientific accuracy by Elmer S. Riggs); *Birds* (checked for scientific accuracy by Arthur A. Allen); *Clouds, Rain, and Snow* (checked for scientific accuracy by the U.S. Weather Bureau, Chicago, Illinois); *The Earth, a Great Storehouse* (checked for scientific accuracy by Margaret Terrell Parker); *Fire*; *Fishes* (checked for scientific accuracy by Walter H. Chute); *Insects and Their Ways* (checked for scientific accuracy by Alfred E. Emerson); *Living Things*; *Seeds and Seed Travels*; *The Sky above Us* (checked for scientific accuracy by G. Van Biesbroeck); *Spiders* (checked for scientific accuracy by Alfred E. Emerson); *Stories Read from the Rocks* (checked for scientific accuracy by Elmer R. Nelson, Jr.); *Trees* (checked for scientific accuracy by Wilbur R. Mattoon). Evanston, Illinois: Row, Peterson & Co., 1941. Pp. 36 (each). A series of textbooks, each in unit form, for science in the intermediate grades of the elementary schools.
636. RIGGS, MARGARET. "A Unit on Soil Conservation," *Instructor*, XLIX (June, 1940), 18-19, 65, 71. A unit on soil conservation for the middle and upper grades of the elementary school.
637. SARPOLA, ALMA. "Pets: A First Grade Unit." Curriculum Bulletin No. 9. Eugene, Oregon: Curriculum Laboratory, University of Oregon, 1940. Pp. 8 (mimeographed). An interesting description of how a first-grade class went about the study of pets.
638. *Science Education* (Elementary Science Number), XXV (March, 1941), 121-58.

Among the articles included in this issue are: "Conservation Comes to the Elementary Schools" by Nellie M. Fields (pp. 121-24); "Developing the Program of Conservation Education in Ohio" by Ollie E. Fink (pp. 124-30); "An Attempt at Specificity in an In-Service Program of Education for Teachers of Science" by G. W. Haupt (pp. 142-43); "Science Is Fun When You Know How and Why" by Ellen Hartnett (pp. 149-52); and "The Problems of an Elementary Science Teacher" by Helen V. Coppersmith (pp. 152-54).

639. *Science Instruction in Elementary and High-School Grades*. By Members of the Faculty of the Laboratory Schools of the University of Chicago. Chicago: Department of Education, University of Chicago, 1939. Pp. viii+232.

Describes science instruction in the Laboratory Schools of the University of Chicago. Classroom teachers will find the science experiences and procedures used in the University Elementary School very helpful.

640. SHAW, MARGARET, and FISHER, JAMES. *Animals as Friends and How To Keep Them*. New York: E. P. Dutton & Co., Inc., 1940. Pp. xvi+272.

In this authoritative manual on pets and other animals, each animal is treated under headings of scientific names, distribution, habitat, origin, care in captivity, breeding, behavior, diseases, cost of upkeep, etc.

MUSIC

V. HOWARD TALLEY
University of Chicago

641. CARNES, KATHLEEN, and PASTENE, JEROME. *The Child's Book of the Symphony*. New York: Howell, Soskin & Co., Inc., 1941. Pp. 98.

Ten of the most important symphonies are explained in terms the child can understand, and the themes are written out so that they may be played on the piano.

642. CLINE, SARAH Y. *Let's Explore Music*. Boston: Ginn & Co., 1940. Pp. 114.

A book of programs for listening, designed to accompany the songs in the first six books of "The World of Music" series (see Item 645 in this list). The material for each grade is outlined in units.

643. COWELL, HENRY D. "Teaching Children To Create Music," *New Era in Home and School*, XXI (July, 1940), 180-83.

A most valuable and revealing article on the creative process by a noted American composer. Creating music is a matter of making choices; for instance, the fewer the intervals used, the easier it is to make a choice. Stresses the importance of the teacher's being a creator and maintaining a "hands-off" policy.

644. CUMMINGS, RACHEL. *A Musical Picture Book*. Edited by G. A. Grant-Schaefer. Chicago: Raymond A. Hoffman Co., 1940. Pp. 48.

Songs for children in kindergarten and the primary grades, tastefully harmonized with attractive illustrations and rhythm-band score. Uses large print.

645. GLENN, MABELLE; LEAVITT, HELEN S.; and REBMANN, VICTOR L. F. (editors). *Sing Along* (Grade VII), pp. 192; *Song Parade* (Grade VIII), pp. 224. Boston: Ginn & Co., 1941.

These two songbooks complete the series "The World of Music" for the elementary school. *Sing Along* consists of 13½ songs grouped around such topics as American sketches, home and family life, etc.; *Song Parade* has 118 songs, from unison to four-part songs.

646. HOWARD, JOHN TASKER. "Make Music with Your Friends," *Parents' Magazine*, XVI (August, 1941), 27, 37, 42.

Written to encourage ensemble playing by children in the home with family and friends. States that solo-playing often has a discouraging effect on children.

647. *Music Educators National Conference Yearbook, 1939-1940*, Vol. XXX. Chicago: Music Educators National Conference (64 East Jackson Boulevard), 1940.

Two sections of this yearbook are especially important: Helen M. Hannen, in "Status of Instrumental Music in the Elementary Schools" (pp. 223-27), reports on questionnaires received from fifty-five cities and towns in thirty-four states. "Present Practices and Needs in the Field of Elementary School Instrumental Music—A Symposium Discussion of the 1940 Survey by Members of the Committee on Instrumental Music in Elementary Schools" (pp. 228-36), includes accounts entitled "What 100 Cities and 20 Rural Districts Are Doing for 'the Child and His Instrument'" by Norval L. Church, "The Relationship between Preinstrumental Devices and Regular Instruments of the Band and Orchestra" by Raymon H. Hunt, and other articles dealing with instrumental problems.

648. POST, ISABELLE. "Unauthoritative Views on Teaching Music Appreciation," *Educational Music Magazine*, XX (November-December, 1940), 31, 40-41.

A negative report on the teaching of music "appreciation" by a grade-school teacher who is not a musician. Excellent for its realism and common sense.

649. SEASHORE, CARL E. *Why We Love Music*. Philadelphia: Oliver Ditson Co. (Theodore Presser Co., distributors), 1941. Pp. vi+82.

This book is written by the noted psychologist in a nontechnical manner. Chapters i-iv, inclusive, are of special interest to the elementary-school teacher. As an analysis of the musical temperament, the book is recommended to general educators as well.

650. STINSON, ETHELYN LENORE. *How To Teach Children Music*. Published under the auspices of the Child Research Clinic of the Woods Schools. New York: Harper & Bros., 1941. Pp. xii+140.

An account of a musical experience offered for exceptional or special children at the Woods Schools, Langhorne, Pennsylvania, which, the author maintains, answers the three questions: (1) "How is it possible to create an interest in music in the child?" (2) "Is the child able to appreciate and interpret music?"

(3) "Of what value is the knowledge of music to the child?" Many case histories are presented, and the methods used in the solution of problems are clearly outlined.

651. SUR, WILLIAM RAYMOND. "The Rural School Music Problem," *Music Educators Journal*, XXVII (February, 1941), 20-21, 74-75.

An authoritative article with helpful suggestions.

652. SUTTON, RHODA REYNOLDS. *Creative Rhythms*. New York: A. S. Barnes & Co., 1941. Pp. xiv+98.

A series of topics worked out in creative rhythms by the students of Greenwich Academy, Greenwich, Connecticut, with the music by Elizabeth Brooks. The age groups include children from seven to twelve years of age. For public as well as private schools.

ART^{*}

W. G. WHITFORD
University of Chicago

653. *Art without Frames*. Produced at Pratt Institute in the Art Education Department by the Senior Class of 1940, supervised by Vincent A. Roy. New York: Pratt Institute (Brooklyn) and the Related Arts Service (511 Fifth Avenue), 1940. Pp. 40.

Deals with the importance of art in everyday life and offers excellent publicity suggestions for making art function more effectively in school, community, industry, and all life-activities.

654. BIRREN, FABER. *The Story of Color*. Westport, Connecticut: Crimson Press, 1941. Pp. 338.

A veritable encyclopedia of facts on color and of color traditions. Traces the exciting story of color from the beginning of history, revealing a wealth of lore and superstition that have linked color with human life throughout the ages. The book contains 150,000 words and 230 illustrations.

655. HONORÉ, YORK. *Pottery Making from the Ground Up*. New York: Viking Press, 1941. Pp. 72.

A simple and elemental treatise of the potter's craft. Provides instructions by which anyone may dig his own clay, form it into pottery, glaze and fire it—all without expensive tools or equipment. The crude ceramic processes described would be suitable for summer-camp work or for schools where the major objective is to explore primitive methods of pottery-making, such as those used by the American Indian.

656. HORNE, JOICEY M. *The Art Class in Action*. Toronto: Longmans, Green & Co., 1941. Pp. 136.

^{*} See also Item 188 (Cole) in the list of selected references appearing in the April, 1941, number of the *Elementary School Journal*.

A collection of technical information and suggested activities for teachers in Canadian schools. Covers all phases of the art experience and particularly handcraft projects. The author has assembled a wealth of information and advice about processes and materials that will give the adventurous teacher aid in developing the creative aspect of art education in its many forms.

657. HOWELL, ALFRED. "Who Is a Good Art Teacher?" *Design*, XLII (April, 1941), 22-24.

Presents a city supervisor's viewpoint on a good teacher of art.

658. LOCKREY, A. J. *Plastics in the School and Home Workshop*. New York: D. Van Nostrand Co., Inc., 1940. Pp. xiv+234.

A book for amateur and school craftsmen. Discusses the buying, casting, working, and finishing of synthetic plastic materials of great variety. One hundred and eighty-two sketches and photographic reproductions, with a frontispiece in full color, present the great creative possibilities of these new craft products.

659. MACDONALD, ROSABELL. *Art as Education*. New York: Henry Holt & Co., 1941. Pp. xviii+310.

A book written for the secondary school but having equal value for elementary-school instructors in formulating a philosophy of creative art-teaching.

660. MACGOWAN, CLARA (editor). *Record of the Conventions at St. Louis and Milwaukee, 1940*. Department of Art Education Bulletin, National Education Association, Vol. VI. Washington: Department of Art Education of the National Education Association, 1940. Pp. 350.

Reproduces more than seventy-five addresses, which cover modern problems of art education in a thorough and comprehensive manner. The discussion topics are divided into groups, some of which are entitled "Art for the Child: Objectives in Elementary Art Education," "Art in the Education of America's Youth," "Studies of Art Education in the World," "Objectives and Place of Art in the Secondary Curriculum."

661. MUNRO, THOMAS (chairman). *Art in American Life and Education*. Fortieth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1941. Pp. xx+820+xxxvi.

Prepared by the Society's committee of fourteen art educators and fifty-seven associated contributors. Contains a twenty-two page introduction and over a hundred articles pertaining to various phases of art education divided into four sections as follows: I. "Art in American Life," II. "The Nature of Art and Related Types of Experience," III. "Art Education: Its Aims, Procedures, and Agencies," and IV. "The Preparation of Teachers of Art." A valuable contribution to the literature of art education covering problems of teaching and administering the subject in elementary and secondary schools and in colleges.

662. STITES, RAYMOND S. *The Arts and Man*. New York: McGraw-Hill Book Co., Inc., 1940. Pp. viii+872.

A clear, stimulating, and complete story of the development of all the arts from the nature dances of the cave painters to the present day. While essentially a history of art, it will be helpful to teachers in developing integrated curriculum material for any grade of the school.

663. TANGERMAN, ELMER J. *Design and Figure Carving*. New York: McGraw-Hill Book Co., Inc., 1940. Pp. x+290.

A book of practical suggestions for carving in wood, soap, and other materials. Discusses tools, processes, and finishes, with ample presentation of design and its application. Profusely illustrated.

664. WINSLOW, LEON L. "The Meaning of Integrated Art," *School and Society*, LII (September 7, 1940), 153-56.

Discusses the part that art plays in the integration of personalities and states that "art is taught in schools because it does so much for children as individuals, because it contributes so much to the making of better citizens. Obviously the purpose of all art is to meet human needs in the best ways possible."

INDUSTRIAL ARTS

HOMER J. SMITH

University of Minnesota

665. BAWDEN, WILLIAM THOMAS. "Industrial Arts in the Small Community," *Educational Leader*, IV (January, 1941), 53-61.

A discussion in which special attention is given to the definition, need, objectives, financing, etc., of industrial arts in small schools.

666. CLAUDE, JOHN. "Is Woodworking on the Way Out?" *Industrial Arts and Vocational Education*, XXX (April, 1941), 160-61.

Data are offered to show that wood-working increases as a general industrial-arts experience, as a vocational-school subject, and as an employment field.

667. DUKE, CHARLES S. "The Negro Technical Worker," *Opportunity*, XIX (April, 1941), 100-104.

Discusses the development of technical training of Negro youth, giving Census data for several professional engineering fields. A five-point program is suggested for "advancing the status of the profession in the race generally."

668. FOX, JOHN A. (editor). *Education* (C.C.C. and N.Y.A. number), LXI (October, 1940), 65-123.

This special issue contains fifteen articles concerning purposes and accomplishments within the Civilian Conservation Corps and the National Youth Administration and includes reference lists, reviews, etc.

669. "The General Shop: An Annotated Bibliography." Prepared by members of the Chapter. Charleston, Illinois: Iota Chapter of Epsilon Pi Tau, Eastern Illinois State Teachers College, 1941. Pp. 13 (mimeographed).

The list of eighty-five briefly annotated items is organized alphabetically, by authors. The articles making up the list have appeared in four journals: *Industrial Education Magazine*, *Industrial Arts and Vocational Education*, *Education*, and *School Life*.

670. *Industrial Arts Handbook*. Missouri at Work on the Public School Curriculum, Secondary School Series: Practical Arts, Bulletin 7B. Jefferson City, Missouri: Lloyd W. King, State Superintendent of Public Schools, 1941. Pp. 158.

Covers philosophy, objectives, organization, administration, content, method, management, shop planning, equipment, etc. Instructional items are listed for certain fields and for typical situations.

671. *Industrial Arts and Vocational Education* (Requisition Number), XXX (May, 1941), 1A-16A, 179-218, 17A-48A.

This issue contains timely articles, but a smaller than usual number of pages of text. Compensating space is given to advertisements useful to persons needing to purchase additional tools, machines, and supplies for industrial departments or schools.

672. McDONNELL, JOHN B. (editor). *Your Place in Life and How To Find It*. Champaign-Urbana, Illinois: Trailblazers, 1938. Pp. 128.

Twenty-two brief occupational descriptions, each prepared by an experienced person, are here presented in an attractive, paperbound book. This publication is not only "a handbook of opportunity for youth"; it is a good reference for industrial teachers and students because of the types of work described.

673. *Machinery and the American Standard of Living*. Chicago: Machinery and Allied Products Institute (221 North La Salle Street). Pp. 88.

Presents "an illustrated factual story of the contributions of technology to American civilization." Following a historical introductory chapter, there are chapters devoted to the machine as "Creator of Jobs," "Labor Server," "Creator of Purchasing Power," and "Producer of Wealth." Two additional chapters deal with the American standard of living and with savings and investments as related to technological advance.

674. MANN, GEORGE C. "Work Experiences in Schools," *Phi Delta Kappan*, XXIII (May, 1941), 320-23.

Presents the argument that work experience is essential to the proper development of young people and that the schools must provide it directly or indirectly if they are to meet the challenge of a new social and economic order.

675. NOVAK, BENJAMIN J. "How Effective Is Selection of Students for Vocational Schools?" *Education*, LXI (May, 1941), 533-37.

A report of a limited study leading to more appropriate admissions to a Philadelphia vocational school. Suggests that more such data be obtained in widely scattered and differing situations so that selective criteria and processes may become more standardized.

676. PROFFITT, MARIS M. "Industrial Arts—A Foundation for Mechanized Warfare Training," *School Life*, XXVI (May, 1941), 238-39.
Serves to broaden our concept of the objectives of the general type of industrial courses in our schools. "Industrial-arts courses . . . can contribute, as no other means can, to the basic preparation of the source of supply for qualified labor to meet defense needs."
677. STRUCK, F. THEODORE. "Industrial Arts, Modern Industry, and National Defense," *American Vocational Association Journal and News Bulletin*, XVI (February, 1941), 16-18.
Chief headings are as follows: "Developing Understanding," "Developing Attitudes," "Developing Habits of Work," "Representative Work Experiences," "Helpful to Specialized Workers," "Background for Skilled Workers," "Teaching Safety," "Mental and Physical Health," "The Home Workshop."
678. VAN DUZEE, ROY R., and STURM, RAYMOND W. "Planning and Equipping a Graphic-Arts Shop," *Industrial Arts and Vocational Education*, XXX (June, 1941), 219-25.
Covers the planning of a shop in which all types of duplicating processes may be sampled in an exploratory way, with emphasis on drawing and printing. Objectives are stressed and the selection, purchasing, installation, and use of equipment are carried into helpful detail.
679. WEAVER, ROGER J. "Initial Steps in Planning Shops," *Industrial Arts and Vocational Education*, XXX (June, 1941), 238-40.
Indicates ten steps in a planning project, followed by an excellent check list of 149 items. Practical and suggestive for the person responsible for instituting or remodeling a school shop.

HOME ECONOMICS^{*}

BEULAH I. COON

United States Office of Education

680. AMIDON, EDNA P., and BROWN, MURIEL W. "Community Organization for Family Life Education," *School Life*, XXVI (November and December, 1940), 38-40; 68-70, 77; (January and February, 1941), 108-11, 140-43.

^{*} See also Item 440 (Lee and Lee) in the list of selected references appearing in the September, 1940, number of the *Elementary School Journal* and Item 220 (Wasson) in the April, 1941, number of the same journal. The following items from the list of selected references in the September, 1941, number of the *Elementary School Journal* contain materials of importance for home-economics education in the elementary school: Chaps. vii and x and the Appendix in Item 435 (*Education for Family Life*) and chaps. iii, iv, viii, and ix in Item 436 (*Family Living and Our Schools*). Item 701 (*Health Education*) in the current list on health and physical education contains in chaps. vi and xi materials pertinent to this list.

The programs in four communities have each included some strengthening of the elementary-school program in home and family living, and some have worked particularly on developing a closer relation between the nursery school and secondary- and adult-education programs in family living.

681. *Course of Study, State of Montana, Junior and Senior High School Home Economics*. Bozeman, Montana: State Department of Public Instruction, 1941. Pp. 190.

Includes possible scope and ways of improving programs in Grades VII and VIII, adaptations to different social and economic conditions in Montana, and means of evaluating programs.

682. FOLSOM, JOSEPH K., with sections by WINIFRED E. BAIN and ELLEN MILLER. *Youth, Family, and Education*, pp. 3-98. Prepared for the American Youth Commission. Washington: American Council on Education, 1941.

Discusses the relation of modern problems of family living to the objectives of education and the emphasis on home life which may be important in the nursery and elementary schools.

683. GLEITZ, FLORENCE M. "The Past and Future of Home Economics at the Elementary Level," *Journal of Home Economics*, XXXIII (January, 1941), 18-21.

Presents an analysis of the development of, and the factors influencing, the elementary-school program and a plan for a clearer perspective, with the program centered in the child's personal and home living as an integrative experience.

684. KENT, DRUZILLA C. "Nutrition Education and the School Lunch Program," *School Life*, XXVI (May, 1941), 232-34.

Describes ways in which the school lunch has been organized to contribute to the education of the individual child in nutrition rather than merely to feed the child efficiently.

685. MCGOVERN, ELIZABETH S. "A Consumer Education Study in an Elementary School," *Practical Home Economics*, XIX (May, 1941), 182.

A study was made of how to buy canned goods by analyzing products for family use by pupils in Grades V-VIII in one city.

686. MACKINTOSH, HELEN K. "Nutrition—A Part of the Elementary School Program," *School Life*, XXVI (March, 1941), 164-65, 182.

Discusses means by which nutrition can make a place for itself as principals, teachers, and children see it as a practical learning experience which ties up closely with classroom work and the school lunch.

687. MILLER, ELLEN. "Persistent Problems in Family Life at the Elementary Level," *Journal of Home Economics*, XXXIII (January, 1941), 14-18.

Persistent problems common to children between six and twelve years of age arising from the child's own process of growth and development and his adjustment to his environment are discussed under physical needs, such as foods,

activity, cleanliness, rest; mental growth, involving the need to explore, to pit one's prowess against difficulties, to know about the world of adult living; and social development, involving getting along with brothers and sisters, acquaintances, the opposite sex, and parents.

688. MILLER, ELLEN. "Elementary Education in Family Living," *Journal of Home Economics*, XXXIII (April, 1941), 237-40.

Discusses the need for the school to work with other agencies in discovering family needs and to co-operate in finding ways of meeting them. The elementary school should provide opportunities to develop homemaking skills, to awaken interest in the home, and, above all, to develop an awareness of the importance of the family as a social institution and of happy and socially constructive family relationships.

689. PATTY, WILLARD WALTER. *Teaching Health and Safety in Elementary Grades*, pp. 260-69. New York: Prentice-Hall, Inc., 1940.

The aspects of safety at home appropriate for different grade levels include, for example, cutting injuries and falls, burns and scalds (Grade II); poisons (Grade V); and asphyxiation, electrocution, and mechanical suffocation (Grade VIII).

690. ROBERTS, LYDIA J., and BLAIR, RUTH. "A Teacher-Education Project in Improving Child Nutrition," *School Life*, XXVI (June, 1941), 273-76, 278.

Teachers and school administrators in one county were reached through a workshop centering in nutrition and health. Classes of preschool, primary and intermediate-grade, and high-school groups demonstrated the possibilities in nutrition education.

691. ROUSH, ARELYNE H. "A Shoppers' Club in a Junior High School," *Journal of Home Economics*, XXXIII (February, 1941), 100-102.

Sixth- and seventh-grade pupils learned much about how to plan for spending and how to buy wisely through assistance with their Christmas plans.

692. WHEABLE, G. A. "Home Economics—A School Superintendent's Viewpoint," *School*, XXIX (May, 1941), 818-20.

Contrasts earlier courses with present courses in home economics and emphasizes the attention now given to co-operation with other teachers and with the homes and to the broader scope of home problems.

LIBRARY TRAINING

EVANGELINE COLBURN
University of Chicago

693. BAISDEN, LEO B., and GARDINER, JEWEL. "Learning To Live in the World of Books," *Nation's Schools*, XXV (June, 1940), 30-32.

Shows how the library and the social-studies programs co-ordinate to make books and reading have meaning to children of Sacramento. The courses of study are planned on a library basis rather than on a textbook basis. The bibli-

ographies given the children provide for individual differences in ability and necessitate the use of libraries.

694. OLDS, TULLY BORDEN. "The Library in the Elementary School," *Curriculum Journal*, XII (April, 1941), 155-58.

Calls attention to the enlarged area of service of the school library today and stresses its importance in the guidance and development of individuals. Discusses briefly library materials and the librarian's tasks and preparation which are requisite to training pupils in accordance with the recent trends in elementary education.

695. REEDER, VEZELLE. "Pupil Guidance and Adjustment in the Library," *Texas Outlook*, XXIV (December, 1940), 23-24.

This article has reference to a high-school library but has much to offer teachers and librarians of all grades. It is concerned with the part the librarian may take in observing children and discovering their needs and in meeting these needs by supplying the right books. The librarian's diagnosis supplements data from other sources and becomes part of the diagnostic report necessary for effective pupil guidance.

696. WIGHT, ANN. "How Our Elementary Library Functions," *Texas Outlook*, XXIV (June, 1940), 58-59.

Tells briefly how a central library was established in a Waco, Texas, school and how it has become the center of the school's activities. Includes brief discussions of the training given children in finding and using books and of the library schedule, which is planned to serve all classes to the greatest extent possible.

697. WILLIAMS, CLAUDE L., and RICHARDS, ENID J. "The Elementary School Library as a Means of Individual Instruction," *Elementary English Review*, XVII (October, 1940), 221-29.

A helpful article on school-library management. Discusses briefly equipment and organization and lists the functions designated to make this library the center of the school's activities. Library techniques employed and ways of stimulating pupil interest are included.

HEALTH AND PHYSICAL EDUCATION¹

D. K. BRACE

University of Texas

698. BAUER, W. W. "Teach Health, Not Disease," *Journal of Health and Physical Education*, XII (May, 1941), 296-98.

Presents a physician's ideas of those essentials for good health which should be taught in our schools.

699. BOOKWALTER, KARL W. "Teachable Moments in Character," *Journal of Health and Physical Education*, XII (January, 1941), 5, 60-61.

¹ See also Item 476 (*Mental Health in the Classroom*) in the list of selected references appearing in the September, 1941, number of the *School Review*.

Discusses situations which may lie in three aspects of the teaching situation: the activity, the social situation, and the self.

700. CORBIN, H. D. "Insuring Safety in the Use of Playground Facilities," *Recreation*, XXXV (April, 1941), 29-31, 56.

Offers suggestions for the safe use of typical pieces of playground apparatus, including suggestions for the playground supervisor and rules for children in relation to each type of apparatus.

701. *Health Education*. Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. Washington: National Education Association, 1941 (revised). Pp. 368.

This revised edition of the well-known Joint Committee report is a guide for teachers in elementary and secondary schools and in institutions for teacher education. It covers the health information that every teacher should have, methods of instruction and guidance, and a workable philosophy of health education for everyone.

702. JACK, HAROLD K. *Physical Education for Small Elementary Schools*. New York: A. S. Barnes & Co., 1941. Pp. viii+184.

Presents a program of physical education for eight grades in small schools in which progression in instruction is stressed.

703. LATIMER, JEAN V. "Educational Principles Underlying Dental Health Education," *Journal of Health and Physical Education*, XI (November, 1940), 541, 572-73.

Discusses motivations which will help in the teaching of dental health.

704. STOLZ, HERBERT R. "The Teacher's Part in Treating Behavior Disorders," *Journal of Health and Physical Education*, XI (October, 1940), 479, 512-14.

A discussion of the impossibility of formulating clear-cut rules regarding the teacher's part in the treatment of behavior disorders is followed by broad generalizations which may be useful in determining what the teacher should and should not do.

705. WHITE, DOROTHY. "A Health Unit for the Grades," *Journal of Health and Physical Education*, XI (September, 1940), 416-18, 449-50.

A suggested unit, intended to develop a questioning, interested attitude toward the "Unseen Forms of Life about Us."

Educational Writings

*

REVIEWS AND BOOK NOTES

THE PRINCIPAL AT WORK.—A comprehensive book such as *Duties of School Principals*¹ has been needed for many years. Over a period of two decades elementary-school principals have had the advantage of comprehensive statements by Cubberley; Kyte; Reavis, Pierce, and Stullken; and Otto, not to mention the *Research Bulletins* and yearbooks of the National Education Association. Now Jacobson and Reavis have supplemented the existing professional literature with a single, broad-gauged volume. In doing so, they have made a smooth blending of common sense, practical experience, and the findings of research. Although designed to be of interest to administrators of both elementary and secondary schools, its greatest usefulness will be at the high-school level.

The volume is divided into eight main sections. The first part, "Organizing for Effective Operation," has four chapters on the nature of the demands on the principal, organization of his duties for effective management, planning the year's work, and responsibilities for schedule-making.

The second part, "The Personnel Management of Pupils," contains two chapters on the principal's guidance functions and the operation of a guidance organization. The third section, "Office Practice and Procedure," is concerned with the office functions of the principal and with school records and reports.

The fourth section, "The Program of Student Activities," includes three chapters dealing with the organization and the administration of the program of student activities and the principal's duties in connection with pupil welfare.

A discussion of "The Organization and Administration of Instruction" constitutes the fifth section of the book. The four chapters cover the grouping of pupils, adjusting school organization to their needs, evaluating pupil progress, and administering the teacher personnel.

The sixth main part, under the heading "The Principal as the Supervisor of Instruction," deals with the general nature of supervisory duties, educational diagnosis and remedial treatment, the improvement of curriculum materials, and the use of testing in supervision.

The principal's "Noninstructional Professional Duties" are discussed in three chapters on the school library, business problems, and the school plant. The last section, on "Professional Development," reviews the principal's duties as a community leader and his obligations to the future of the principalship.

In many respects this handbook has unique appeal. From cover to cover it

¹ Paul B. Jacobson and William C. Reavis, *Duties of School Principals*. New York: Prentice-Hall, Inc., 1941. Pp. xxiv+812. \$3.50.

is designed to be typographically attractive and readable. The text is written in simple, straightforward English. The authors make no attempt through big words and complex style to create an air of profundity. Rather they seem to take the reader on a tour of the principalship, indicating its many responsibilities, pointing out pitfalls, outlining specific activities, and, on occasion, explaining in detail. There are many citations of research and of original practices. The common-sense spirit and the avoidance of superlatives which characterize the entire work may be illustrated by the discussion of democracy in administration. The authors outline the democratic procedure, contrast it with autocratic and "drift" policies, and then indicate rather generally throughout the book the possibilities of shared co-operative activity.

A number of specific statements in the volume might be questioned, for example: "Probably the most effective method of identifying atypical children is through a health survey by the school physician or nurse" (p. 404). This proposal places more faith in the typical school physician or nurse than some administrators would feel is justified and, on the whole, seems less effective than procedures requiring the co-operation of teachers, physician, psychologist, administrator, and parents.

One major criticism of this reviewer is that the book attempts to cover the elementary-school principalship while dealing primarily with the duties of the secondary-school administrator. The result often is an inadequate treatment of elementary-school problems. For example, guidance in elementary schools is dealt with in two pages (pp. 116-18) without any reference to the 1940 yearbook of the Department of Elementary School Principals, *Meeting Special Needs of the Individual Child*.

A second criticism is that the authors have introduced many questions and topics without giving either detailed treatment in the text or adequate reference to other publications. For example, safety education is treated in approximately one page, with no recognition of the 1940 yearbook (*Safety Education*) of the American Association of School Administrators; the units of work, check lists, etc., prepared by the Research Division of the National Education Association; or of other outstanding materials in this field. This general type of criticism could be made with respect to sex education, consumer education, first aid, and other topics. No single book can cover all possible topics, but, where questions are raised, some reference could be made to useful publications in the field.

Finally this reviewer misses a chapter on educational philosophy that gives central purpose to the principal's duties. Surely, in view of the declining population, the expansion of the federal government, the shifts in employment, and the many other socio-economic problems, there is a need for principals to think about their duties in terms of a dynamic social scene.

In spite of the limitations as seen by this reviewer, the volume stands in a class by itself as a comprehensive review of the opportunities and duties of the principalship.

FRANK W. HUBBARD

National Education Association

TRAINING IN DEMOCRATIC PRACTICES.—The present world-conflict has forced the American people to compare the democratic system of government with the theory and the practice of the totalitarian states. Many of our people sincerely believe in our system of government yet do not understand clearly the democratic process. Others are conscious of the weaknesses of a democracy yet feel that its values are most important. All this confusion has forced us to seek a better, clearer understanding of the democratic process and to pass this information on to the younger generation.

The author of a recent publication¹ feels that the schools should help secure a better insight into the democratic process; help build a sounder, firmer belief in its values; and develop a greater competence in its practice. This book will be read with interest since it emphasizes the need for a change from the authoritarian practices of the schools to a more democratic system, in order that our pupils may experience in their school life the democratic processes which should help them to meet their own problems today and those of adult life.

The main characteristic of the democratic process is called "co-operative social action"—a process of relationship among individuals, young and old, working together to achieve "the good life." In analyzing this concept, the author lists certain basic principles that tend to give unity and cohesion to our way of life. Taken together they form the platform of our democracy. These principles include such ideas as the worth of the individual, a belief in his capacity to learn and to act intelligently, a belief in the ability of a group to study and to solve their own problems, and a belief that deliberate social action can be attained by an evolutionary procedure.

The chief features of a democratic plan of action have been outlined by the author: "(1) determining the purposes to be realized; (2) formulating plans for achieving them; (3) devising methods of putting the plans effectively into operation; (4) evaluating the results in improved living; and (5) selecting new and improved purposes for continued co-operative planning and action" (pp. 7-8). Through this plan of democratic co-operation, a desirable growth of the individual and the improvement of "the good life" may be obtained.

One method of bringing about an understanding of the democratic process is through the mastery of subject matter. This plan assumes that habits and skills can be effectively built up through isolated practice and then combined and utilized meaningfully in the experience of living. The subject matter of the curriculum is emphasized and expanded with the hope that this knowledge will somehow be later translated into democratic action.

The author believes, however, that an understanding of the democratic process can best be attained by the practice of this procedure in studying the personal problems of the group through the democratic co-operation of pupils, teachers, parents, and others. The group would achieve unity through the setting-up of real purposes in meeting their problems. Various plans would be

¹ L. Thomas Hopkins, *Interaction: The Democratic Process*. Boston: D. C. Heath & Co., 1941. Pp. 490. \$2.75.

presented and discussed. Each individual would accept responsibility for the successful execution of the plan. Methods of evaluation would be made and then applied. This procedure should result in improved purposes or in the formation of new ones.

Through the release of the best thinking, the co-operative group should solve problems which cannot be so well handled by an individual. As the co-operative thinking of the group rises, so does the quality of the thinking of the individual improve also. Thus the individual is able to develop an understanding of the democratic process by co-operatively studying and thinking about some of his own problems as well as those of his community. He learns better to select needs and purposes on which to work. He is able to manage his experiences intelligently and, while respecting the rights of others, is prepared to evaluate learning in the process of experiencing.

This plan of teaching the democratic process through the co-operative experience curriculum has made greater progress in the elementary school than in secondary education. Although the author feels that this same approach should be carried into the high school, he has little to offer other than the use of pupil experiences within the subject-matter fields. He believes that the experience curriculum may be desirable for those pupils who are not interested in academic subjects or in preparation for college. These pupils need some help in dealing with practical, everyday problems. To provide an experience curriculum for them would create a school within a school, would offer a contrast between the subject-matter curriculum and the experience curriculum, and would make apparent the desirability of the latter.

The democratic concept of school administration is that of a co-operative undertaking in which everyone participates to the extent of his ability through the interactive process, on the theory that those who must abide by the policies should participate in making them. This procedure becomes a learning process for all and should result in a rise in group thinking through the process of co-operative action. This process not only should be applied to the relations between teachers and the superintendent's office but also should be practiced in the individual school and in the classroom. Democracy as a way of life must operate within the school system if it is to be taught to the pupils as a process.

This book is written in a clear, forceful manner, and the topic is significant in the present state of world-affairs. The importance of the theme is obvious to all, and it must be realized that an evolution in school practices has been taking place and that much progress is being made toward democratic practices. The desirability of this plan has been shown by school surveys made during the past decade. The leadership in developing democratic practices has been taken by the Progressive Education Association. This book reflects this point of view and is a valuable contribution to the movement by giving detailed suggestions for the accomplishment of democratic training in our schools.

HAROLD T. RAMSEY

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AN EFFECTIVE COMMUNITY-SCHOOL HEALTH PROGRAM.—Students of social problems are well acquainted with the significant impetus that the 1930 White House Conference on Child Health and Protection gave to attempts to align more closely general public-health programs with those of the school health movement. School administrators, health officers, curriculum directors, and teachers are afforded the opportunity of learning the effectiveness of a co-ordinated program through a recent volume.¹

Owing to definite limitations beyond their control, the authors confined their investigations to a "cross-sectional and longitudinal study" (p. x) of the school health program as organized and operated in six selected counties in Tennessee. It is believed that "the program as organized in Tennessee is fairly typical of programs being carried on wherever school health services are an integral part of the generalized public-health program, and because the supervision by the Tennessee Department of Public Health has assured a reasonable degree of uniformity in both procedure and recording, it was decided to study the experience in that state from 1930 to 1936" (pp. 1-2).

The school health records of 56,160 white and colored children, who were six to sixteen years of age at their first school health examination, constituted the basis of this survey. Analyses concerned with dental caries, vision findings, and tonsil, heart, lung, and nutrition defects are reported through the use of adequate and interpretative tables. The next section of this report is devoted to a study of the relative association of the physical defects one with another. Next in order is a consideration of the status of the school children studied in regard to immunization against diphtheria, smallpox, and typhoid fever.

At the conclusion of each major division of the study recommendations are appropriately made. They refer not alone to improvement of a health aspect applied to any single county nor to groups of children within but also to all existing and proposed health programs. Many pupil incentives for correction of defects are suggested in the section of the study which deals with the "blue-ribbon program" in Tennessee. The limitations as well as the advantages of using such secondary motivation are presented.

In the ninth and the tenth divisions of the volume are given general conclusions regarding the health program, as surveyed by the staff, and recommendations for improved school health programs. The student of school-public relations or of parent education will gain insight into the solution of problems in their fields from the general conclusions with regard to the parent's role in a health program for the schools. From the statistical evidence presented, no more assuring inference can be drawn than that which relates to the value of having a parent present at the time of the physical examination at the school. The varying degrees of effect and importance of parent attendance as related to age of child, defect found, and treatment secured are illustrated in the volume.

¹ W. Frank Walker and Carolina R. Randolph, *School Health Services: A Study of the Programs Developed by the Health Department in Six Tennessee Counties*. New York: Commonwealth Fund, 1941. Pp. xii+172+tables. \$1.50.

The emphasis placed on preschool medical supervision indicates that systematic attention to defects at an early age results in lower incidence of specified defects at the age of six years. The authors make their readers well aware of the extent to which community health services, as represented and experienced in preschool medical supervision, may bear directly on the effectiveness of school medical services both in terms of relatively fewer defects found and in the percentage of subsequent corrections observed.

The book is well written, and statistical data are adequately supplied in 104 tables and 12 charts. Appendix C offers 35 additional tables, which supplement in greater detail the evidence presented in the main body of the volume. Perhaps the greatest value of this study lies in its possible uses as a reference and handbook by school administrators and public-health directors who are planning initial or reorganized school health programs.

FRANK ALLEN SMOLA

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ORGANIZING PLAY ACTIVITIES INTO A PHYSICAL-EDUCATION PROGRAM.—The literature on supervised play in the elementary school is limited in quantity and is devoted largely to problems of physical education in well-equipped city schools, few specific aids in this curriculum area being available to rural teachers, teachers in small schools, or those in larger schools where equipment and space are limited. As a rule the teachers in such positions have the minimum training, are relatively inexperienced, and consequently have a definite need for assistance in organizing the less formal phases of their school programs. A recent publication^{*} which attempts to meet this need with respect to physical-education activities in the small school is certain to find a warm welcome as it reaches the desks of teachers in such schools.

The supervised-play activities outlined in this book are carefully grouped within three divisions: primary, intermediate, and upper elementary-school grades. The work of each division is built on that of the preceding level. The activities are well explained and easy to teach, and the outline provides a commendable continuity throughout the program suggested.

Since the book is intended to be used as a guide or manual, there is no extended treatment of the history or the philosophy of physical education. The first three chapters, comprising a total of nine pages, deal with "The Physical Education Period," traditionally known as the "recess period"; "Technique of Teaching Physical Education"; and "Objectives of Elementary-School Physical Education." Even in these introductory chapters, theory has consciously been eliminated, and the entire emphasis is placed on practical and concrete suggestions. Chapters iv, v, and vi are devoted to specific instructions, which are intended to help the teacher inaugurate the program outlined in the remainder of

^{*} Harold K. Jack, *Physical Education for Small Elementary Schools*. New York: A. S. Barnes & Co., 1941. Pp. viii+184. \$1.60.

the book. Chapter iv is entitled "Method of Using the Physical Education Outline." Chapter v, "Equipment Necessary for the Physical Education Program," gives a list of simple, inexpensive equipment which may be secured or made in any school and supplies directions for constructing or providing many kinds of homemade equipment. Chapter vi, "Development and Use of Facilities in the Small School," suggests practical ways of utilizing playground space and basement rooms. A suggested layout plan is included in this chapter.

A commendable balance between individual and group activities is maintained throughout the program outlined in the last three chapters of the book. The rhythm program should be especially valued by teachers. This activity is developed from the simplest form in the lower primary grades through a logical and graded sequence to the intricate and complex patterns of folk dances of all nations in Grade VIII. Phonograph recordings are listed to accompany each rhythm activity.

With the exception of a few diagrams, there are no illustrations in the book. However, its usefulness and its value to the classroom teacher are not seriously affected by this omission. The author is to be commended for compiling and outlining so much helpful material in this small volume. It has much to offer teachers in large elementary schools where the physical-education program is not completely prescribed, and for rural teachers or for those in small elementary schools, it offers a balanced program which may be adapted to any local situation.

CARL L. BYERLY

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SPELLING WITH A PURPOSE.—A series of spelling textbooks² by Trabue and Stevens contains some features that are not found in many of the widely used books. One of these is the arrangement of the words in groups relating to various topics of interest. For example, one list relates to "Pets," another to "How We Heat Our Homes," another to "Freedom in America." The authors also have set up five criteria for the selection and grade placement of each word: (1) Do the pupils of the grade hear, read, and speak it daily? (2) Do pupils of the grade need to write it often? (3) Is it particularly desirable socially that pupils spell the word correctly? (4) Is there evidence that 60 per cent or more of the pupils in the grade spell it correctly? (5) Is the word one of the three or four thousand words most frequently written by adults? If these criteria were adhered to as consistently as the reviewer believes they were, the words in these books are carefully placed for ease and permanence of learning.

The topical grouping of the words enables the teacher to develop a spelling readiness. Through class discussions the pupils learn the use of the words in their everyday language at the time they learn the pronunciation, meaning,

² M. R. Trabue and B. A. Stevens, *Spell To Write: Books I, II, and III*. Evanston, Illinois: Row, Peterson & Co., 1941. \$0.48 (each).

and spelling. Thus the first lesson on each week's list of words is an experience lesson, in which pupils discuss the topic and learn to use the spelling words in this discussion. The words come to have fuller meaning, and the pupils feel a need for learning to spell them. This idea of spelling readiness is probably just as important to spelling as reading readiness is to reading.

The method of presentation is not far different from that outlined in many other spelling textbooks. The method uses experience activities to develop understanding and readiness, the pretest, the study period, the final test, and the continued study of any words not yet mastered. The method of word study is similar to that used by most teachers.

Systematic reviews are carried out. According to the authors all words are reviewed three times, and the more difficult words are reviewed oftener at increasing intervals. Each week there are a number of review words in addition to the new words. Then there are general reviews every ninth week. Apparently some effort has been made to relate the review words to the topic under which the new words are placed, but this co-ordination has not always been possible. This attempt seems to weaken, to some extent, the value of the topical grouping.

There are a few minor criticisms which do not destroy the value of the books. The tendency to slovenly pronunciation is slightly emphasized. "For" and "four" are mentioned as sounding "much alike" (Grade II, 10th Week); the children may not react to the word "much" and, therefore, tend to pronounce the words exactly alike, as indeed do some of the dictionaries now in use in schools. The same is true of "hoarse" and "horse" (Grade VII, 1st Week). The suggestions as to similarity seem not to have any value compensating for the possible damage to accurate pronunciation. The activities suggested for the experience period and the study periods seem to be insufficient and sometimes lacking in interest. Most of the experience-period activities suggest conversation, and the study periods are merely study, presumably according to the outline given in the "Foreword to Teachers." In the directions for the "Weekly Program of Instruction," the plan for using the review words is not clear. The review words are not mentioned in the directions for the experience period or the pretest period, but it may be inferred from subsequent statements that they should be included in these two periods.

The chief aims of the books are to develop spelling readiness, to give a limited list of words for the pupils to learn to spell correctly in correspondence and in other written materials, to encourage pupils to learn additional words, and to suggest means whereby the teacher and the pupils can reach the goals set up. If the plans outlined are followed, it seems certain that most children who use these books will learn to spell according to their needs.

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY
AND PRACTICE

- Adventures in the Reconstruction of Education.* Edited by A. J. Klein, in collaboration with committee chairmen: E. W. Anderson, R. H. Eckelberry, D. H. Eikenberry, H. G. Hullfish, L. L. Love, D. Oberteuffer, S. L. Pressey, L. E. Rath, and F. P. Robinson. Columbus, Ohio: College of Education, Ohio State University, 1941. Pp. viii+290.
- ALEXANDER, CARTER. *How To Locate Educational Information and Data: A Text and Reference Book*, pp. xiv+440, \$4.00; *Alexander Library Experiences: For Use with the Second Edition of "How To Locate Educational Information and Data,"* pp. 158, \$1.50; "Instructor's Manual for Use with the 'Alexander Library Experiences,'" pp. 15. New York: Teachers College, Columbia University, 1941 (second edition).
- BAXTER, BERNICE. *Teacher-Pupil Relationships.* New York: Macmillan Co., 1941. Pp. 166. \$1.25.
- DOUGLAS, MARY PEACOCK. *Teacher-Librarian's Handbook.* Chicago: American Library Association, 1941. Pp. xviii+136. \$1.90.
- DRISCOLL, GERTRUDE. *How To Study the Behavior of Children.* Practical Suggestions for Teaching, No. 2. New York: Teachers College, Columbia University, 1941. Pp. viii+84. \$0.60.
- FEATHERSTONE, W. B. *Teaching the Slow Learner.* Practical Suggestions for Teaching, No. 1. New York: Teachers College, Columbia University, 1941. Pp. viii+100. \$0.75.
- GANS, ROMA. *Guiding Children's Reading through Experiences.* Practical Suggestions for Teaching, No. 3. New York: Teachers College, Columbia University, 1941. Pp. x+86. \$0.60.
- KEFAUVER, GRAYSON N., and HAND, HAROLD C. *Appraising Guidance in Secondary Schools.* New York: Macmillan Co., 1941. Pp. xiv+260. \$3.50.
- LANGTON, CLAIR V. *Orientation in School Health.* New York: Harper & Bros., 1941. Pp. xviii+680. \$3.00.
- MARSHALL, G. H., MARSHALL, CLARA W., and CARPENTER, W. W. *The Administrator's Wife.* Boston: Christopher Publishing House, 1941. Pp. 122. \$1.50.
- PITTINGER, BENJAMIN FLOYD. *Indoctrination for American Democracy.* New York: Macmillan Co., 1941. Pp. xii+110. \$1.25.
- STINSON, ETHELYN LENORE. *How To Teach Children Music.* Published under the auspices of the Child Research Clinic of the Woods Schools. New York: Harper & Bros., 1941. Pp. xii+140. \$1.50.
- STRANG, RUTH. *Group Activities in College and Secondary School.* New York: Harper & Bros., 1941. Pp. xiv+362. \$4.00.

- STRANG, RUTH M., and SMILEY, DEAN F. *The Role of the Teacher in Health Education*. New York: Macmillan Co., 1941. Pp. x+360. \$2.00.
- STREET, ROY F. *Children in a World of Conflict*. Boston: Christopher Publishing House, 1941. Pp. 304. \$2.50.
- WANG, CHARLES K. A. *An Annotated Bibliography of Mental Tests and Scales*, Vol. II. Publications of the College of Education, Catholic University of Peking, No. 1. Peiping, China: Catholic University Press, 1940. Pp. viii+698. \$5.00.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL
TEACHERS AND PUPILS

- BAIR, FREDERICK H., NEAL, ELMA A., FOSTER, INEZ, and STORM, OLLIE P. *Practice Steps in English*: Book I, pp. 112; Book II, pp. 112; Book III, pp. 128; Book IV, pp. 128. New York: Macmillan Co., 1941. \$0.32 (each).
- Book and Library Plays: For Elementary and High School Use*, Vol. II. Selected and edited by Edith M. Phelps. New York: H. W. Wilson Co., 1941. Pp. 266. \$2.25.
- DALE, EDGAR. *How To Read a Newspaper*. Chicago: Scott, Foresman & Co., 1941. Pp. x+178. \$1.40.
- DURRELL, DONALD D., and SULLIVAN, HELEN BLAIR, with the co-operation of HELEN A. MURPHY and KATHRYN M. JUNKINS. *Building Word Power in Primary Reading*, pp. 94, \$1.36; *Ready To Read*, pp. 66, \$0.28. Yonkers-on-Hudson, New York: World Book Co., 1941.
- FLYNN, HARRY E., and PERKINS, FLOYD E. *Conservation of the Nation's Resources*. New York: Macmillan Co., 1941. Pp. x+386. \$1.60.
- HALE, HELEN. *Let's Make a Home*. Yonkers-on-Hudson, New York: World Book Co., 1941. Pp. 92. \$0.68.
- Health, Safety, Growth Series: *Growing Up* by C. E. Turner and Grace T. Hallock, pp. viii+216; *Keeping Safe and Well* by C. E. Turner, Frances W. Clough, and Grace Voris Curl, pp. x+214. Boston: D. C. Heath & Co., 1941. \$0.72 (each).
- KELTY, MARY G. *Life in Modern America*. Boston: Ginn & Co., 1941. Pp. viii+532. \$1.44.
- Our Animal Story Books: *Hundreds of Turkeys* by Edith Osswald and Mary M. Reed; *Peanuts the Pony* by Arensa Sondergaard and Mary M. Reed. Boston: D. C. Heath & Co., 1941. Pp. 32 (each). \$0.24 (each).
- REDDICK, DEWITT C. *Journalism and the School Paper*. Boston: D. C. Heath & Co., 1941 (second edition). Pp. viii+346. \$1.48.
- VIOLETTE, HALLIE HALL, and DARBY, ADA CLAIRE. *On the Trail to Sante Fe*. Boston: Houghton Mifflin Co., 1941. Pp. 266. \$1.80.
- Words: Spelling, Pronunciation, Definition, and Application*. Compiled by Rupert P. SoRelle and Charles W. Kitt. New York: Gregg Publishing Co. (third edition revised by the Editorial Staff of the Gregg Publishing Co.), 1941. Pp. x+214. \$0.60.

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- Annual Report of the General Education Board, 1940.* New York: General Education Board. Pp. 216.
- BARKER, ROGER; DEMBO, TAMARA; and LEWIN, KURT. *Frustration and Regression: An Experiment with Young Children.* Studies in Topological and Vector Psychology II. University of Iowa Studies, Studies in Child Welfare, Vol. XVIII, No. 1. Iowa City, Iowa: University of Iowa Press, 1941. Pp. xvi+314. \$1.35 (paper), \$1.70 (cloth).
- COMMITTEE ON MATERIALS FOR TEACHERS IN INTERNATIONAL RELATIONS, PHILLIPS BRADLEY (chairman). *American Isolation Reconsidered*, pp. viii+208, \$0.50; *The Teacher and International Relations*, pp. iv+20, \$0.10. Washington: American Council on Education, 1941.
- DARLINGTON, MEREDITH W. *The Education of Rural Teachers in Service.* Rural Education Series, Bulletin I. Chicago: Committee on Rural Education (600 South Michigan Avenue), 1941. Pp. 16.
- EDUCATIONAL POLICIES COMMISSION. *The Education of Free Men in American Democracy: Study-Discussion Outline.* Washington: Educational Policies Commission of the National Education Association and the American Association of School Administrators, 1941. Pp. 16.
- "4-H Grain Grading Demonstrations." Miscellaneous Extension Publication No. 62. Washington: Extension Service, United States Department of Agriculture, 1941. Pp. 28 (mimeographed).
- GANDERS, HARRY S. *Education for War and Peace.* The J. Richard Street Lecture for 1941. Syracuse, New York: Syracuse University, 1941. Pp. 22.
- Guidance for Rural Boys.* College of Agriculture, University of Tennessee, Bulletin 7. Knoxville, Tennessee: Department of Agricultural Education (in cooperation with the State Board for Vocational Education), 1940. Pp. 42.
- HICKER, HARRY D. *Vocational Rehabilitation for Disabled Persons in California.* Bulletin of the California State Department of Education, Vol. X, No. 8. Sacramento, California: State Department of Education, 1941. Pp. viii+42.
- HURD, ARCHER WILLIS. *Study Guide and Textbook, Educational Psychology.* Minneapolis, Minnesota: Burgess Publishing Co., 1941. Pp. 88. \$1.50.
- LOWENFELD, BERTHOLD. *Teachers of the Blind: Their Status and Salaries.* New York: American Foundation for the Blind, Inc., 1941. Pp. 44. \$1.00.
- Missouri at Work on the Public School Curriculum: Secondary School Series: Bulletin 4A (1941), *Social Studies*, pp. 594; Bulletin 6 (1941), *Natural Sciences*, pp. 486; Bulletin 7C (1941), *Practical Arts: Business*, pp. 288; Bulletin 8A (1941), *Fine Arts: Music*, pp. 134; Bulletin 8B (1941), *Fine Arts: Art and Allied Arts*, pp. 244. Jefferson City, Missouri: Lloyd W. King, State Superintendent of Public Schools.
- Report of the Alfred P. Sloan Foundation, Incorporated, 1940.* New York: Alfred P. Sloan Foundation, Inc. (30 Rockefeller Plaza), 1941. Pp. 44.
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Parents to the Public Schools of Indiana, Part I. Bulletin of the School of Education, Indiana University, Vol. XVII, No. 4. Bloomington, Indiana: Bureau of Co-operative Research and Field Service, Indiana University, 1941. Pp. 82. \$0.50.

WOELLNER, ROBERT CARLTON, and WOOD, M. AURILLA. "Requirements for Certification of Teachers and Administrators for Elementary Schools, Secondary Schools, Junior Colleges, 1941-42 Edition." Chicago: University of Chicago, 1941 (sixth edition).

UNITED STATES OFFICE OF EDUCATION PUBLICATIONS:

Bulletin No. 2, 1940—*Biennial Survey of Education in the United States, 1936-38*: Chap. iv, *Statistics of Higher Education, 1937-38*, Parts I, II, and III (abridged) by Henry G. Badger, Frederick J. Kelly, and John H. McNeely. Pp. vi+130.

Bulletin No. 6, 1940, *Studies of State Departments of Education*, Monograph No. 11—*Supervision of the Education of Negroes as a Function of State Departments of Education* by Ambrose Caliver. Pp. vi+46. \$0.10.

Bulletin No. 9, 1940—*Education and Service Conditions of Teachers in Scandinavia, The Netherlands, and Finland* by Alina M. Lindegren. Pp. viii+150. \$0.20.

Digest of Annual Reports of State Boards for Vocational Education to the U.S. Office of Education, Vocational Division, Fiscal Year Ended June 30, 1940. Pp. viii+96+statistical and financial tables.

Pamphlet No. 5, 1941 (revised)—*State-wide Trends in School Hygiene and Physical Education* by James Frederick Rogers. Pp. 16. \$0.05.

Vocational Division Monograph No. 22, 1941—*Farm-Family Living: Contributing to Satisfying Farm-Family Living through Co-operative Educational Programs in Vocational Agriculture and Home Economics*. Pp. ii+12. \$0.05.

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Educational News and Editorial Comment

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STUDYING THE BEHAVIOR OF CHILDREN

OUR responsibility to provide for the needs of the individual child has, for a number of years, been an essential part of our educational philosophy. It is only recently, however, that we have faced squarely the question of what we should know in order to provide for the needs of each child. Acquaintance with the concepts and the facts of human development in its several aspects—intellectual, emotional, social, physical—is an important resource in arriving at organization and understanding of our data about an individual, but first we must collect those data. The seventh-grade teacher who expects a set of directions in response to her question, “What should I do with Mary, who is so helpless she cannot even sharpen her pencil?” is asking the impossible of the field of human development. She is ignoring the fact that another kind of information is essential, namely, objective facts about Mary as a unique individual with her own unique life-history. Knowledge about child development might suggest some hypotheses, however, to guide the teacher in collecting information about Mary in relation to this particular behavior symptom. Is Mary in that stage of pubescent development where she is trying out techniques of getting and holding the attention of the boys, and has she found that the time-honored technique of helplessness-

ness is rather successful? Or is there evidence that Mary is focusing much of her attention and energy on resisting adult authority? Or does careful observation suggest that Mary is so involved in internalized conflict that the world of reality is losing significance for her?

Developing the ability to study the child's behavior The assembling of the facts about a child which are essential to an understanding of that child requires the acquisition of skills in observing children and in collecting other information. These skills can never come simply from reading about them or listening to someone lecture about them; they are skills acquired by practice—a learning by doing. Many teachers who have begun to study children have become increasingly aware of the complex nature of human behavior and are seeking guidance in their task. In the past few months, three manuals by four authors have appeared which are designed to give some of the help sought by these teachers. In each case the materials and suggestions offered are drawn from the experiences that each author had in working with teachers, both pre-service and in-service, in the study of specific children. These publications are: *How To Study the Behavior of Children* by Gertrude Driscoll (Practical Suggestions for Teaching, No. 2, published by Teachers College, Columbia University); *Studying the Individual School Child* by Horace B. English and Victor Raimy, of Ohio State University (published by Henry Holt and Company); and two mimeographed pamphlets on “What Should We Know about a Child?” and “Helping Teachers Study Their Children” by Fritz Redl, of the Division on Child Development and Teacher Personnel, Commission on Teacher Education, American Council on Education.

Each of these manuals is oriented toward the task of finding out what dynamic pattern of causes is motivating each child. With this goal established, the urge we have to find a specific that will wipe out a behavior symptom in a “problem child” disappears, and the real implications for improving classroom relations and experiences take their rightful place as the major objectives of such study of individuals. The student of human behavior is warned again and again against the urge to find a simple, concrete, tangible, or an unresolvable cause of any distorted personality patterns—an urge not limited

to beginners. Too often have we been willing to accept as a reason for failure to understand the complex pattern of a child's life some physical explanation, such as "He's left-handed and right-eyed," or other factors beyond our control, for example, the set of pressures implied by the description "bad home situation." English and Raimy have this to say of health as an excuse for avoiding the facing of our task:

Suppose the question concerns Penelope's poor school work. The teacher finds it easy to accept the mother's belief that this is due to "ill health." That saves her the burdensome task—so it may seem—of discovering just what is wrong with Pennie's arithmetic. What a perfect alibi, in fact, for both teacher and parent! Of course, actual ill health may have its effect on school development. Let's be sure that the ill health is actual and that it has the effect indicated. Nor should we forget the real possibility that frustration and anxiety due to feeling of failure in school may cause the ill health instead of the other way round.

Driscoll discusses the teacher's increased responsibility where the "home situation is bad" to provide opportunity for children to achieve desirable attitudes toward adults and toward authority:

By the time children enter kindergarten they have already a pattern of behavior toward adults in authority. They may show perfect freedom in talking with adults, accepting them as kindly persons who are willing to share their interests. They may regard adults as formidable persons who should be avoided, or as cruel persons who are given authority in order to interfere with children's pleasures. An attitude of distrust toward adults is regarded as unfortunate, because it means that children are going to have to learn how to live in an extremely complex world with little guidance from mature persons. If this attitude continues during the upper elementary and junior high school age, children are burdened with the necessity of working things out as best they can either alone or with the help of equally confused friends.

Responsibility for changing attitudes toward adults rests upon the teacher in the primary grades. To the child she exemplifies authority. If she can gain the confidence of those children who regard her as formidable or cruel because she represents authority, she will prepare them for receiving help from adults willingly. The teacher in the upper elementary grades should stand in the role of a friendly adviser. As children learn to trust authority, there is a natural transition from the mother substitute role desired from the primary teacher to acceptance of the friendly adviser relationship of the upper elementary-school teacher. One may detect in the spontaneous conversations of children the attitude which they have toward the teacher.

Driscoll raises the following questions to guide the teacher's observations in this area.

1. Which children in your class talk with you spontaneously? What is the nature of their conversation or confidences?
2. Are there some children who watch you shyly but never venture a direct remark?
3. Are there some children who avoid you and act defiantly whenever your back is turned?
4. Do you have children who have a frightened look whenever you approach them directly?

Teachers frequently select a "problem" child with whom to begin their study of individuals. Often this is a child who is so disturbed that only the expert clinician can understand the deeply overlaid causes of the child's trouble. The teacher becomes baffled and frustrated and often is inclined to drop the whole program. Teachers are urged by these writers to study the so-called normal children—first, at least. These children constitute between 90 and 95 per cent of the average classroom population, one author points out, and it is in the light of their needs, their "normal problems," that the school program must be evaluated.

Procedure in studying the behavior of the child A natural question for the beginner is: "What shall we observe?" Implied in this question frequently is the assumption that the expert *knows the way* to study children and that he has a list of *the traits* for which to look. English and Raimy have this to say of these expectations: "Children do not develop according to the neatly logical divisions of a questionnaire, nor can their personalities be understood by indexing their lives." Redl says: "Many teachers expect too much from the elaborate gadget or technique the specialist puts up in his laboratory. They have too little confidence in the value of looking around at the real children in their room." Consultants who have worked with teachers studying their pupils are agreed that teachers know many more pertinent facts about these children than they are aware of. There has been so little in their training or in the purposes of the school situation to develop their skill further or to organize what knowledge they have and to channel

it into usefulness that they minimize their own knowledge. The questions of best techniques to be used in child study and the way in which increased understandings shall become functional must be worked out in the school situation. Serious exploratory work is going forward in many schools of this country; it is from such groups that the answers to these questions will come. However, in spite of the agreement of Driscoll, English and Raimy, and Redl that there is no single, indisputable procedure in the study of children or in compiling case studies in the school, they do offer many concrete suggestions on how skill may be developed.

What should be written on observational records One characteristic of the genuinely useful observational record is that the anecdotes are concrete descriptions of a child's behavior and not generalizations about it. Redl points out that there is a rather universal tendency among beginners to generalize and summarize, and from his experience with a number of study groups he was able to distinguish the following kinds of generalizations which were common substitutes for specific description:

Statements of [the teacher's] personal emotion to the child: "He is a swell fellow; I like him a lot"; "I certainly do enjoy working with this youngster."

Evaluations: "This youngster does excellent work"; "He is really a most gentlemanly little fellow"; "Does poor work most of the time."

Prognoses: "This boy is going to be a very good student"; "She will never amount to much . . ."

Theories on "what would happen if": "He might do much better if he would only apply himself more"; "She would have better marks if she weren't so easily discouraged . . ."

Attempts at causal explanations: "He has an inferiority complex"; "This youngster's school trouble is due to a home condition . . ."

Summarizing short cuts of observations: "This girl is very shy"; "John is a very withdrawn youngster"; "If he only weren't so insecure"; "aggressive . . ."

Driscoll urges the student of behavior who is striving for objectivity to practice writing down observations, using guides such as the following:

1. Avoid the use of words that indicate good or bad behavior, such as cooperative, lazy, bothersome, charming. These words describe a judgment already made.

2. Describe exactly what the child did that caused you to conclude that he was co-operative, etc., rather than merely stating the observation as a fact.
3. Describe behavior that occurs frequently and see what different situations cause that particular response.
4. Observe one particular situation and see how many different responses you are able to distinguish among the various children in the class.

English and Raimy emphasize the importance of both the facts and the meanings, or the teacher's interpretations, of those facts as part of a record, but they also emphasize the importance of separating these two kinds of data. They illustrate this point with the following reports made by two observers watching the same child at play.

1. Charles was so angry at the boy who bumped into him accidentally that he looked like he could burst. He wanted to fight right away and looked as though he would injure the other boy before he thought better of it.

2. Another boy bumped into Charles [accidentally?] as Charles was going down the slide. Neither child was going fast, but Charles turned around at the bottom and looked very upset. He clenched his fists and kicked the slide while shouting at the other boy something about "You did it on purpose! You always do!" Then he stopped shouting and walked quickly away. [Did he decide against fighting because he thought better of it? Was he afraid of the other boy? Or was there some strictly enforced rule against fighting on the playground? Did he suspect he might get into trouble if he fought?]

Relations of behavior to the stage of development One concept which is important in directing attention in observation and in interpreting observed behavior is that of the appropriateness of the behavior for the stage of development of the child. The very same behavior can have very different meanings in different developmental periods. For example, if a boy is becoming "more rebellious, less tidy and reliable in his work habits, more set upon gaining gang approval," one would immediately want to know, Redl points out, where that boy is, developmentally:

If the undesirable changes reported about a child are in the middle stages of his childhood development, at about age seven or eight, the likelihood is that some special cause must be at work. If the same statement is made about a "preadolescent" youngster, say about twelve or thirteen, then it may merely mean that the youngster shows the usual symptoms of the developmental phase. His behavior is more normal than in the first case; no special cause other than his developmental changes need be active behind it.

Driscoll includes the following remarks in her discussion of clues that would be helpful in analyzing observations of intellectual development.

As children develop intellectually, they should be able to deal with abstract ideas more accurately. Until the last decade we grossly exaggerated children's ability to think in abstract terms. We now know that children of primary age need to return to concrete experiences again and again in order to achieve real understanding. They may know how to count to fifty, but their comprehension may not extend beyond the quantity five. By the upper elementary grades, however, they should be able to project their ideas beyond the concrete. They begin to visualize conditions of living, for example, that are quite different from their own. Children in the upper elementary grades who must still rely on concrete experiences rather than language for clear comprehension of an idea are operating on the primary level in this area of intellectual ability. . . .

Children in the primary grades tend to reach conclusions on the basis of limited examination of the facts. They will decide, for instance, that Jimmy should not be allowed to care for the turtles because he neglected them once. In the upper elementary grades children would take a great deal more into account before coming to such a conclusion. They would be able to weigh the circumstances that led to Jimmy's forgetting to attend to the turtles.

She discusses various clues to observing and understanding stages of emotional development, such as dependence on personal approval, growth in ability to express gradations in emotional response, response to time requirements, and so on. Of dependence on personal approval she has the following to say:

Dependence on the opinion of others, either adults or peers, is characteristic of young children. After the first weaning from home when children enter the kindergarten or first grade, dependence on adults should decrease rapidly. However, there are many children who feel little security in their own abilities and require a great deal of reassurance from adults in order to gain independence from them. It is not possible to demand independence in these children. The only solution is to create in them confidence in their own ability. One would think that capable children would develop independence normally, but capable children sometimes are also very critical and highly sensitive. Under these circumstances, confidence develops more slowly and reassurance from the adult is a necessity.

The majority of children in the upper elementary school will accept the necessity of independence from the adult. They have found through experience that the adult is annoyed by their demands for reassurance. If they should still need reassurance, they will attach themselves to the more independent members of the class. They frequently are the "handy men" of the class, willing to do any

chore in order to be rewarded by approval. These children will laboriously print the charts after other children have had the fun of planning them. They go after the necessary playground equipment while other children are enjoying the game. They will be the "housekeepers of the class."

THE CASE OF FRED

Fred is an excellent example of a capable boy who still desired to be dependent on the teacher, but who had accepted the fact that his dependence would not be tolerated. He still tried in many ways to gain the teacher's approbation. He was the most polite boy in the class. Whenever visitors entered, he was the first to offer chairs to them. He was constantly on the lookout for opportunities to be considerate to other members of the class. His pencils were offered, his best eraser would be given freely to any child who needed one. He would step out of first place in line, which he always was able to secure because he was alert to the situation, in order to give it to another child. Although able to make excellent contributions in discussion, he would gladly keep quiet if a child whom he admired wished to contribute first. His entire activity showed the need for recognition from the teacher and children.

Where opportunities for observing may be found Too often a teacher's knowledge about a child is limited to what she is able to learn about him in the classroom, and for teachers in a platoon or departmentalized system the opportunity to gather information is further limited to an hour or two a day. Children seldom exhibit the same kind of behavior in all situations. If the teacher has opportunity to observe the child during creative and aesthetic experiences and in group work, such as group planning, activity programs, excursions, and lunch periods, as well as during experiences in skill subjects, the task of understanding him will be greatly facilitated. In discussing opportunities for observation during creative experiences, Driscoll has the following suggestions on clues to understanding a child in dramatic play and in pictorial arts.

The characters that children select to portray satisfy a need for expression. In general, children prefer a dominant role in dramatization. Children live in an adult world in which they are smaller physically, less competent socially, and constantly aware of their immaturity in comparison with adults around them. Consequently a character role that is dominating, at times cruel, and at other times slightly benevolent, serves as a vehicle for emotional release. A still better medium is drama developed by the children out of their own imaginative experiences. The characters chosen depict the predominating moods of the children if they feel "safe" in expressing themselves in the presence of the teacher.

Tense, inhibited children may be fearful of dramatic impersonation. Children who are highly imaginative, but inhibited in their emotional response, may be embarrassed by dramatic expression. To them emotional expression is "not nice," therefore dramatic expression is also taboo. These children may help in formulating the drama, but they seldom are chosen by their classmates to be one of the "actors." Teachers may find the use of shadow graphs or puppets helpful in encouraging inhibited children to participate in dramatic expression.

Some children never advance beyond the backdrop of drama. In any dramatic production, casual or more finished, there are characters, such as rabbits, birds, or butterflies, that serve as backdrops for the main characters. We all know how convenient it is to assign the misfits to these impersonations. The children who are always assigned to these generalized characters are aware of the nondescript roles they play. If the teacher has some of these children in her class, she should observe carefully to see when they are ready to step out of this role into more active participation. . . .

Repetition of the same mood in color and form may give a clue to a dominant mood in an individual's life. When children have become fully expressive in color and form, one may often see the same mood appearing again and again in their work. The mood may be one of peace, solitude, catastrophe, or joy. These expressions contribute additional evidence which the teacher may utilize in understanding the child's emotional life. On the whole, children gain more satisfaction when they are allowed to portray these moods inconspicuously than when they are asked questions about the meaning of the picture or view the picture on exhibition.

Sociometric techniques in the study of children Many teachers seldom, if ever, watch their pupils on the playground. It is here and in neighborhood play groups that a large portion of the living which is most vital and important to the child in the later elementary-school grades takes place. It is here that peer values and group loyalties are learned, where one child becomes the isolated, rejected scapegoat, another the competent leader of his group or gang. Merle H. Elliott, in an article "Patterns of Friendship in the Classroom" in the November issue of *Progressive Education*, discusses the use of a simple sociometric technique which provides a great deal of information for the teacher who is seeking to understand the social dynamics of the classroom. Elliott points out:

As educators we talk a great deal about social development, learning to work with others, social learnings, socializing influences, and so forth. Sometimes we may even acknowledge to ourselves that the peer culture appears to be more influential than parents' or teachers' homilies in setting the standards and tastes

of our children. However, in actual classroom practice, much of social development and social adjustment is left to chance. In general teachers do not know a great deal about the social interplay in their classrooms, the individual child's reputation among his peers, the factors which determine prestige, the patterns of friendships, the social aspirations. Recent researches in these areas have been very enlightening, but neither the results nor the research techniques have been widely applied to the practical school situation.

More attention should be given to the problems of placing in the hands of teachers the very best techniques for studying the children in their classrooms. Especially in the important field of social relationships are such techniques needed. In recent studies at the University of California a simple technique for the study of children's friendships has been developed. During the past year the writer has been working with elementary teachers in the Oakland public schools adapting this technique for classroom use and helping teachers to use it as a means for gaining insight into the social needs of boys and girls.

The technique which Elliott used is that of asking the children to write down the names of their very best friends. The results were organized for the teacher's use into a diagram in which the children's choices of one another are represented, and one can see at a glance the cliques, the stars of attraction, the rejected and isolated children. Elliott discusses what the teachers have been able to do for some of the isolated children. He says:

The techniques which classroom teachers have used seem to be of three kinds: (1) providing opportunity for the development of friendly relations; (2) improving social skills; (3) building up a sense of accomplishment or competency. In actual practice a teacher may utilize all three of these at once so that it is sometimes difficult to distinguish between them.

Many teachers are surprised at the information these sociometric techniques, and likewise their own observations, sometimes reveal. Recently a small group of student teachers with their training teacher decided to keep records on the same child in their study of child development, and they chose for study a "socially successful" child. At their first meeting to pool their findings after everyone had had a chance to observe, they were amazed to discover an agreement that their subject was not a socially successful child with his peers. They had been misled in their original judgment by the child's friendly, co-operative relations with the adults in the classroom. Elliott reports that teachers had similar experiences in his study; for example, one teacher commented:

At first I couldn't believe that Ray has no friends. I would have said that he is very popular. After observing the class for a while I discovered that the facts shown by the friendship chart are correct. I misjudged Ray because he is always so friendly with me and goes out of his way to do nice things for me. I like him, but the other children don't pay any attention to him.

What is revealed by the child's out-of-school life Real understanding of a child requires understanding of his home and neighborhood. Redl points out that "one and the same piece of behavior may have very different implications, depending on the code of mores" of the neighborhood or social class from which the child comes. He says:

I have found some children of highly overprivileged classes showing acceptance of their teacher by being extremely and nearly ridiculously formal and polite—much more so than that teacher demanded or even enjoyed. The same emotion, "acceptance of the adult," would be expressed by children from a slum area in an opposite way—they would be polite and formal only so long as they did not trust the teacher. They would show their acceptance by being extremely informal. Observers may frequently interpret such behavior as "freshness," or "lack of respect," when it means exactly the opposite. The *sociological undertones* of behavior are not well enough known, not sufficiently studied. . . .

Other items in which we lack awareness of sociological differences in meaning are these: the role of tidiness, order, care for personal appearance and clothing; the importance or lack of importance of good manners; certain codes of conventional behavior; freedom from, or rejection of, swear words, sexual allusions, types of jokes told or practical jokes played; and so forth.

It is becoming increasingly common for a parent-teacher conference to replace or supplement written reports to the home. Opportunity for understanding the complex interaction of the personalities in the home may depend on the skill of the teacher in obtaining the confidence and co-operation of the parent in these conferences. In order to check the teacher's effectiveness in these conferences, Driscoll asks:

In your parent conferences have you succeeded in setting up the following situation:

1. One in which parent and teacher are doing about the same amount of "telling."
2. One in which the parent sees that the teacher thoroughly enjoys the interesting behavior of her child.

3. One in which the teacher is able to approve of some attitude or method that the parent is using.

4. One in which the parent becomes more relaxed as the conference continues.

Obstacles to studying the child in school situations As teachers progress in their study of children, they become aware of obstacles that present hazards to the accomplishment of their task of collecting the necessary information and of providing different experiences and new opportunities for the development of the children they study. Midyear promotions (with resultant change of teachers) and highly departmentalized programs (where a teacher deals with two or three hundred children each day) make it difficult for a teacher to know the children's needs, to say nothing of trying to meet those needs. Teachers and administrators who are facing the reality of the slogan, "Provide for the needs of the individual child," are sitting down together to evaluate their schedules. Sometimes it is feasible to fuse programs and allow a teacher to remain with a class for a half-day instead of an hour. Sometimes teachers can stay with a group for more than a year, even though it is for only one period each day. In some cases teachers in a departmentalized program have cleared their schedules of meetings which had become more habitual than functional and are using that time to pool their observations of individual children. The possibilities of the usefulness of the cumulative record are being re-examined by a number of teacher groups. They no longer look upon the cumulative record as something making demands on their time for the writing of reports which are housed in some remote office or stored away in a still more remote administration building; they are realizing that such a record, if compiled with the basic purpose of providing vital, useful information *to be used by the classroom teacher*, could greatly decrease the task of gathering information and could help to provide the individual child with the continuous understanding that is his due.

SOME RECENT RESEARCH IN HUMAN DEVELOPMENT

IN A recent publication, *Frustration and Regression: An Experiment with Young Children*, one of the University of Iowa Studies in Child Welfare, the authors, Roger Barker, Tamara Dembo, and

Kurt Lewin, describe an experiment which has important implications for anyone dealing with children. They set up a situation in the nursery school in which they could compare the behavior of children in a nonfrustrating or free-play situation with their behavior in a frustrating situation. In the first situation the subject was allowed to play with a standard set of toys, and a record was kept of the maturity and creativity or constructiveness of his play behavior according to scales previously devised. On another occasion the child was observed in the same situation except that, after a brief period with some additional and much more attractive toys, he had to leave them for the less attractive toys. A wire net separated him from the new, attractive toys, which were plainly visible but inaccessible. Again a record was kept of the child's behavior. The authors report a number of findings, among which are the following:

In the frustration situation freedom of expression as indicated by play monologue, and friendly conversation with experimenter, decreases; and masking social behavior increases.

The frequency of happy actions decreases and of unhappy actions increases in frustration. This change is positively related to strength of frustration.

The frequency of restlessness and of aggressive actions is positively related to the strength of frustration.

A background of frustration decreases the average constructiveness of play with accessible toys. On the average, the constructiveness regresses by an amount equivalent to 17.3 months mental age. For the younger subjects, 28-41 months of age, this average regression is 9.6 months; for the older subjects, 42-61 months of age, the average regression is 21.5 months.

The average length of play units decreases in the frustration situation with the strong frustration group.

The amount of regression in constructiveness of play is a function of the strength of frustration. This is shown by the difference in the effect on children showing strong or weak frustration in the experimental setting, and by a comparison of behavior of the same children under different strengths of frustration.

The amount of negative emotionality increases with the strength of frustration.

Another volume just published which makes a contribution to our information about child growth is *Predicting the Child's Development* by Walter F. Dearborn and John W. M. Rothney. This book has been referred to in advance notices as the "Harvard Growth Study."

It has unique value because it reports the analyses of physical and mental measurements which were obtained annually on the same children, several thousands of them, as they progressed through school from Grade I to Grade XII. Most of the significant problems of growth and development can be solved only by this longitudinal approach, which makes possible the examination of the individual growth patterns. Such patterns are obscured by group norms in the cross-sectional approach. In their "Summary and Conclusions" the authors affirm these basic principles:

Further study of this volume brings out the fact that two principles stand out with respect to every characteristic measured. These two may be stated very simply as follows: (1) Marked individual differences may be found among any age, sex, ethnic, or maturity group at every period of measurement, and (2) marked variability in individual growth curves appears throughout the course of the growth period. These principles cannot be considered as new, since the first has been demonstrated (although never as consistently, and over as long a period as in the present investigation) many times and the second has been the subject of much discussion. Our results put the principle of variability throughout the growth period on a more secure foundation than was possible by cross-sectional data.

This principle of individual variability goes right to the root of such problems as the constancy of the I.Q., the use of height-weight tables, the prediction of time of maturity, prediction of age at which growth will cease, and various similar problems. We have established the fact that variability rather than consistency in growth is the rule, that prediction except for averages of groups is extremely hazardous (and even this is hazardous at the adolescent period), and that comparison-with-average procedures have little value in the study of the development of individuals. It would be unfortunate if such findings were injected into the heredity-environment dispute, and we would hesitate to take our data as evidence for one side or the other; but if development is simply considered as a maturing of predetermined characteristics, uninfluenced by environmental situations, a much more complicated unfolding process than is commonly believed must be postulated. Since the extent of variability and the timing of changes have been revealed by this study to be greater than they have previously been considered to be, such a thesis would seem the more difficult to maintain.

This book may be obtained from the Sci-Art Publishers, Harvard Square, Cambridge, Massachusetts.

CAROLINE TRYON

WHO'S WHO FOR DECEMBER

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by CAROLINE TRYON, member of the staff, Division on Child Development and Teacher Personnel, Commission on Teacher Education, American Council on Education. GERTRUDE WHIPPLE, supervisor of reading in the public schools of Detroit, Michigan, and associate professor of education at Wayne University, lists and discusses items of geography readiness considered important by more than two hundred teachers and supervisors. S. VINCENT WILKING, Bigelow Fellow in the Harvard Graduate School of Education, reports a critical survey of the literature concerned with the relation of personality maladjustment to reading difficulties. W. S. DAKIN, senior supervisor of rural education in the State Department of Education, Hartford, Connecticut, outlines the objectives which activity programs should serve. GEORGE SPACHE, psychologist at Friends Seminary and Brooklyn Friends School, New York City, summarizes trends in recent readers for the primary grades and suggests criteria by which to appraise textbooks. H. VAN ENGEN, head of the Department of Mathematics at Iowa State Teachers College, Cedar Falls, Iowa, believes that using n , instead of the usual question mark, to indicate the unknown quantity in early arithmetic examples would equip the pupil with the method used later in his school life and would aid in giving him an understanding of a general mathematical principle. WILLIAM S. GRAY, professor of education at the University of Chicago, presents a list of selected references on teacher education.

The writers of reviews in the current number ABRAM W. VANDER MEER, member of the staff of the Laboratory Schools at the University of Chicago and director of visual education at Englewood Evening High School, Chicago, Illinois. COLEMAN R. GRIFFITH, professor of education at the University of Illinois. HELEN L. KOCH, associate professor of child psychology in the Department of Home Economics at the University of Chicago. WILLIAM G. WHITFORD, associate professor of art education at the University of Chicago. ANDREW W. BROWN, chief psychologist of the Institute for Juvenile Research, Chicago, Illinois.

ELEMENTS IN GEOGRAPHY READINESS

GERTRUDE WHIPPLE

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RECENTLY it has been recognized that there is often a discrepancy between the general reading abilities of the child beginning the study of geography and the specific abilities required to read, with adequate comprehension, introductory textbooks in geography. Though the teacher must normally work with such instructional materials as are at his disposal, he can remove many difficulties by insuring geography readiness on the part of the pupils and by delaying geography instruction until the children are ready for it. The term "geography readiness" (first employed, so far as the writer is aware, by Tabb¹) is here used to denote not only readiness for reading in geography but also ability to master geographic concepts and experiences apart from reading. It is the purpose of this article to show that geography readiness can be analyzed and that the study of geography can be planned for intelligently.

PROCEDURE IN THIS STUDY

A questionnaire concerning readiness for the study of geography, whether through reading or otherwise, was prepared by the writer and sent in January, 1941, to representative school officials in both rural and urban areas. This questionnaire included a list of thirty-two items of readiness prepared on the basis of the investigator's judgment after consultation with a few specialists in geography and in elementary education. Space was also provided for the co-operator to add other items and to make comments. The co-operator was asked to check each of the listed items which in his judgment contributes to readiness for the study of geography. Though this procedure was, of course, equivalent to asking leading questions, it was recognized that the co-operator would not have time to make an

¹ Elizabeth H. Tabb, "Geography Readiness," *Virginia Journal of Education*, XXXI (November, 1937), 76-77.

analysis without help, and it was further recognized that efforts to analyze new areas by questionnaire methods are seldom productive.

All the co-operators were identified with instruction at the third- and fourth-grade levels, mostly as teachers and supervisors. They furnished valuable replies, many of which dealt with geography readiness in detail. Two hundred and five responses were received to a total of 320 questionnaires—an abnormally high percentage of response (64 per cent). About half came from school systems in large cities (with populations over 255,000), and the others came from rural areas and small city systems. The data reported represent every state in the Union.

AGREEMENT WITH ITEMS LISTED ON QUESTIONNAIRE

The thirty-two items given on the questionnaire are listed in Table 1, together with the percentage of co-operators who checked their acceptance of each item. The percentages range from 98, or almost universal acceptance, to 61. Since every item listed was approved by a majority of the co-operators, the nature of the items listed in the table is significant.

Eight of the items (Items 3, 4, 5, 16, 17, 22, 25, and 31) relate to the child's experiential background. It may be inferred that, in the judgment of the co-operators, the child who has been permitted and trained to observe interesting activities and surroundings is better prepared for geography than is the child who has not enjoyed such advantages. Gaining a wide acquaintance with one's surroundings would seem to be a matter both of privilege and of observation. The curious, observing child will undoubtedly gain an appreciable amount of experiential background specifically related to geography in the course of so common an experience as a streetcar ride.

Seven other items listed in Table 1 refer to the child's interests, namely, Items 2, 7, 13, 20, 21, 24, and 29. In commenting on Item 7, "Interest in people of other nationalities," several co-operators stated that the interest should be such as to lead to a sympathetic acceptance of a foreigner as one's equal. If a child had such interests as those recognized by the co-operators as pertinent, he would to that extent have a natural aptitude for the mastery of geography.

Five other items indicate specific abilities, namely, ability to indicate directions (Item 6), reading ability (Item 8), ability to identify

TABLE 1
NUMBER AND PERCENTAGE OF CO-OPERATORS WHO
APPROVED EACH ITEM OF READINESS

Item	Num- ber	Per Cent
1. Inquiring attitude toward things seen in pictures and not understood.....	200	98
2. Interest in simple stories containing the travel element.....	196	96
3. Experience of seeing men at work in different industries.....	193	94
4. Familiarity with the countryside surrounding a city.....	189	92
5. Familiarity with the means of transportation which children commonly enjoy.....	189	92
6. Ability to indicate north, south, east, and west.....	188	92
7. Interest in people of other nationalities.....	188	92
8. Reading ability within one grade of the child's position in school.....	184	90
9. Comprehension of the services that make up life in providing food, clothing, and shelter.....	183	89
10. Seasonal variety in the locality.....	180	88
11. Variety in the work carried on in the community.....	179	87
12. Ability to identify landscape features which he sees.....	177	86
13. Interest in the weather.....	176	86
14. Realization that his own type of living is not universal.....	176	86
15. Ability to find a place in the neighborhood by following given directions.....	175	85
16. Familiarity with the means of communication which children commonly enjoy.....	174	85
17. Experience of visiting zoos.....	173	84
18. Understanding on the part of the child that he has seen only a small part of the world.....	172	84
19. Ability to look at pictures reflectively.....	168	82
20. Interest in realistic stories of animals.....	168	82
21. Desire to travel and learn about other peoples.....	164	80
22. Familiarity with public parks in a city.....	162	79
23. Variety of vegetation types in the locality.....	162	79
24. Interest in cause and effect and in how things have become as they are.....	161	79
25. Experience of visiting the circus.....	160	78
26. Sense of human interdependence.....	153	75
27. Varied racial elements in the community.....	150	73
28. Variety of relief, or contour, features in the locality.....	143	70
29. Interest in camping and hiking activities.....	139	68
30. Proximity of the locality to bodies of water.....	137	67
31. Experience of looking down on areas from a mountain or a high building.....	136	66
32. Variety of languages spoken in the community.....	125	61

landscape features (Item 12), ability to find a place in the neighborhood by following directions (Item 15), and ability to look at pic-

tures reflectively (Item 19). Howe^x has shown that, though many elementary-school children do not know directions, they can learn by the time they reach Grade III if proper training is provided. With regard to reading ability, one co-operator stated: "We have carried on some experiments which tend to show that reading ability, within reason, isn't too important. Interest is of major value." However, difficulty in reading material was generally commented on. Twenty-seven co-operators volunteered unfavorable comments on available textbooks in geography, stating, for example, that the books are "too factual and difficult," include "too many difficult words for young minds to comprehend," are "written in condensed style with many facts crowded into small paragraphs," present "a multiplicity of ideas in rapid sequence," require the teacher "to develop new concepts too fast," and "are not written or organized for young children." According to these reports, if a child is to understand the material found in many geographies, he must be an advanced reader. One co-operator explained the cause of this situation as follows:

Most geography books have been written by people whose chief interest is geography and who know little about children except the few of high mentality and broad background found at training schools. These children can supply for themselves whatever the books lack. . . . Geography books should be simplified and humanized. Maps should be numerous and colorful but very, very simple.

Whether or not one agrees with these comments, it is undoubtedly true that considerable ability in reading is a prerequisite for reading most of the available textbooks in geography. As to ability to identify landscape features (Item 12), three co-operators stressed that these should include only the most common features, such as mountains, rivers, and plains. As to ability to find a place in one's neighborhood (Item 15), the value of this element was implicitly recognized by a large majority of the co-operators. The same is true of Item 19.

Four statements (Items 10, 23, 28, and 30) refer to elements of the physical environment. The co-operators agree that the child who

¹ a) George F. Howe, "A Study of Children's Knowledge of Directions," *Journal of Geography*, XXX (October, 1931), 298-304.

b) George F. Howe, "The Teaching of Directions in Space," *Journal of Geography*, XXXI (May, 1932), 207-10.

has seen the effects of changing seasons, the different vegetation types (deserts, forests, and grasslands), and the various land and water forms is better able to understand the terms used in geography than the child who has not seen these things.

Four items, namely, comprehension of the services providing food, clothing, and shelter (Item 9), realization that his type of living is not universal (Item 14), understanding that he has seen only a small part of the world (Item 18), and the sense of human interdependence (Item 26), may be thought of as important understandings. Six co-operators expressed doubt that the beginning child can gain any sense of human interdependence, but experience shows that at his age he can gain a glimmering of the idea, which will later be expanded. The study of the home and community, which is frequently undertaken in the primary grades, may very well help a pupil to sense our dependence on various workers. Certainly the child who has begun to realize how people specialize in their daily work is better able to undertake the study of geography than is the pupil who thinks of people as supplying all their own wants or who gives no thought to the matter at all.

Three items (Items 11, 27, and 32) are concerned with elements in the child's social environment. When there is variety in the social environment of the child, it would seem that he should bring a broader background of experience to the social studies. Here again the co-operators agreed.

The remaining item, an "Inquiring attitude toward things seen in pictures and not understood" (Item 1), ranks first in Table 1. As two co-operators indicated, such an attitude, which may be regarded as an extension of Item 19, aids in motivating the study of geography. The child who is ever asking intelligent questions about pictures is ready to have his attention directed to relationships inherent in their content.

ADDITIONAL ITEMS LISTED BY CO-OPERATORS

The co-operators named 103 additional elements in geography readiness. The voluntary addition of more than three times as many items as were included in the investigator's original subjective analysis argues strongly for the heterogeneous and multiform character of geography readiness. It shows that, to be ready for instruction

in geography, a child needs to be prepared in many respects. The elements reported show clearly the different kinds of experiences and aptitudes which children need to develop as geography gets under way.

A summary of the additional items in geography readiness which were supplied by the respondents is given in Table 2. In the interpretation of the figures, the reader should, of course, take into account that the co-operators had no occasion to add items which were included in the list submitted by the investigator and that the low frequency for certain items does not, therefore, indicate slight importance. For example, though "Ability and interest in reading" (Item G) was rarely mentioned, 184 of the 205 co-operators indorsed a virtually identical item already listed on the questionnaire, namely, "Reading ability."

Table 2 shows that more than a third of the co-operators mentioned items which, though not naming "background," can be classified under "Adequate experiential background" (Item A). The item ranking highest under this heading is "Familiarity with maps and the globe" (Item A-1). An examination of the items falling under "Maps and the globe" suggests that most of these items are really goals of geography instead of prerequisites to the study. It is possible that the co-operators who reported these items had in mind readiness to pursue the study of geography rather than readiness to undertake it; or possibly their prescribed curriculums contain the highly questionable requirement of ability in map interpretation as a prerequisite. The second item of background is the child's "Fund of information about conditions around him" (Item A-2). Of the items falling under this heading, "The community" (Item A-2-a) was most often reported. Item A-3, "Acquaintance with the landscape," was infrequently reported, but at least two of the items in Table 1 relate to this heading, namely, Items 4 and 12. Since the character of the landscape and the arrangement of cultural features in it play an important role in the study of geography, an acquaintance with the local landscape should help to prepare for the study. The fourth item, "Familiarity with simple graphs" (Item A-4), was named by seven co-operators. It is possible that these co-operators used the word "graph" in the sense of a simple diagram rather than in its

TABLE 2
NUMBER AND PERCENTAGE OF CO-OPERATORS MENTIONING EACH
ADDITIONAL ITEM RELATING TO GEOGRAPHY READINESS*

Item	Num- ber†	Per Cent
A. Adequate experiential background.	72	35.1
1. Familiarity with maps and the globe.	38	18.5
a) Ability to interpret simple maps.	13	6.3
b) Ability to make simple maps.	10	4.9
c) Appreciation of the relative size of the universe.	4	2.0
d) Interest in the globe and various kinds of maps.	3	1.5
e) Ability to indicate north, south, east, and west on a map.	3	1.5
f) Ability to interpret simple map legends.	2	1.0
g) Ability to point out on the map the place where he lives.	2	1.0
h) Ability to find a place on a map by following directions.	1	.5
i) Familiarity with the facts of day and night.	1	.5
2. Fund of information about conditions around him.	32	15.6
a) The community (for example, roads, streets, places of interest, products, natural resources)	15	7.3
b) Conservation of resources.	7	3.4
(1) Natural resources.	3	1.5
(2) Human resources.	1	.5
c) Protection.	6	2.9
(1) Of health.	2	1.0
(2) Of life.	2	1.0
(3) Of property.	1	.5
d) How people earn a living (for example, his father's occupation)	4	2.0
e) Agencies of government (for example, sensing that there are city, county, state, and federal buildings)	3	1.5
f) Builders of our nation.	3	1.5
g) Water supply.	2	1.0
h) Currency.	1	.5
i) Erosion.	1	.5
3. Acquaintance with the landscape.	9	4.4
a) Acquaintance with the landscape in the locality (for example, land surfaces, beaches, water fronts, plant life)	9	4.4
b) Ability to reproduce landscape features on the sand table or in a picture.	2	1.0
c) Knowledge that many different types of landscapes exist.	1	.5
d) Sensitiveness to barrenness or beauty of landscape.	1	.5
4. Familiarity with simple graphs.	7	3.4
B. Interests other than reading.	41	20.0
1. Recreational activities.	18	8.8
a) Gardening.	4	2.0
b) Going to the movies.	3	1.5

* In descending order of frequency of mention as determined by general categories indicated by capital letters, and in descending order of frequency of mention within major categories and subcategories.

TABLE 2—*Continued*

Item		Num- ber	Per Cent
c)	Constructing models.	2	1.0
d)	Listening to radio programs.	2	1.0
e)	Taking part in Junior Red Cross activities.	2	1.0
f)	Taking trips.	2	1.0
g)	Visiting museums.	2	1.0
h)	Making collections.	1	.5
i)	Modeling with clay.	1	.5
j)	Taking part in dramatic activities.	1	.5
k)	Recording observations in pictures and in writing.	1	.5
2.	Aspects of nature.	17	8.3
a)	Plant life.	7	3.4
b)	Animal life.	4	2.0
c)	Sun, moon, and stars.	2	1.0
d)	Seasonal changes.	1	.5
3.	The community.	4	2.0
a)	People (for example, kinds of people, their activities)	2	1.0
b)	Local historical spots (for example, oldest home, historical landmarks)	1	.5
c)	Work.	1	.5
4.	Current topics.	2	1.0
a)	Discussions at home.	2	1.0
b)	Radio discussions of news.	1	.5
c)	News reels.	1	.5
C.	Tendency away from provincial-mindedness.	37	18.0
1.	Interest in other races, religions, nationalities, and people of earlier times.	24	11.7
a)	Appreciation of contributions from strange peoples and countries (for example, toys, arts, books)	5	2.4
b)	Understanding that the fundamental needs of life are universal.	4	2.0
c)	Consciousness of the difficulties endured by people in early frontier days.	3	1.5
2.	Acquaintance with people who have traveled.	4	2.0
3.	Interest in different types of workers.	1	.5
D.	Sense of distance and direction.	27	13.2
1.	Ability to give directions.	11	5.4
a)	To give accurate directions to others.	4	2.0
b)	To name the directions one must go in order to reach well-known places (for example, parks, playgrounds, downtown sections)	4	2.0
2.	Ability to determine directions.	4	2.0
a)	Direction to particular places by reference to highway signs and other sources of direction.	2	1.0
b)	Cardinal directions by reference to the position of the sun.	2	1.0
c)	Direction of the wind by reference to a weather vane	1	.5
3.	Ability to follow directions.	4	2.0
a)	To recognize main roads or streets.	2	1.0
b)	To find routes to points of interest outside his neighborhood.	1	.5
4.	Ability to give rough estimates of distance.	2	1.0
a)	Distance between well-known places.	1	.5
b)	Relative heights.	1	.5
5.	Ability to indicate directions.	2	1.0
a)	Right and left.	1	0.5

TABLE 2—Continued

Item	Num- ber	Per Cent
E. Ability in the interpretation of pictures	21	10.2
1. Ability to use pictures as sources of information (for ex- ample, to determine locations and climatic conditions)	8	3.9
2. Ability to note details in pictures	2	1.0
3. Ability to select pictures bearing on a specific subject	1	.5
4. Ability to tell about a picture in a few connected sen- tences	1	.5
5. Ability to tell the story indicated in a series of related pictures	1	.5
6. Appreciation of aesthetic values in pictures	1	.5
7. Appreciation of having experienced what is shown in certain pictures	1	.5
8. Habit of reading the captions to pictures	1	.5
F. Good intelligence and the beginnings of reasoning ability	20	9.8
1. Ability to see relationships	15	7.3
2. Ability to understand man's increasing control over nature	2	1.0
3. Interest in where things come from	1	.5
G. Ability and interest in reading	19	9.3
1. Specific abilities in reading	8	3.9
a) To use the index and table of contents	2	1.0
b) To compare ideas	1	.5
c) To relate past experiences to new ideas	1	.5
d) To read to prepare for a discussion	1	.5
e) To read for information	1	.5
f) To skim to ascertain certain facts	1	.5
g) To evaluate ideas met in reading	1	.5
h) To reorganize ideas met in reading	1	.5
i) To remember ideas	1	.5
2. Interest in reading	5	2.4
a) Nature and science stories	2	1.0
b) Stories about people of other lands	2	1.0
c) Stories of neighborhood helpers	1	.5
d) Varied types of reading (for example, newspapers, magazines, and books; informative and narrative materials)	1	.5
3. Acquaintance with the meanings of terms which are likely to arise in geographical reading (for example, "ocean," "country," "state," "sea")	4	2.0
4. Ability in recognizing words	1	.5
5. Desire to read	1	.5
H. Habit of keen observation of environment	6	2.9
1. Animal life	2	1.0
2. Boats	2	1.0
3. Children of different nationalities	2	1.0
4. Airplanes	1	.5
5. Homes	1	.5
6. Plant life	1	.5
7. Stores	1	.5
8. Ways of living in the community	1	.5
I. Good habits of work	4	2.0
1. Willingness to share materials and experiences	3	1.5
2. Desire to co-operate	2	1.0
3. Ability to concentrate	1	.5
J. Good physical condition	3	1.5
1. Good eyesight	1	.5
2. Good health	1	.5
K. Ability in the use of oral English	1	0.5

technical meaning. In view of the findings of scientific studies that children are unable to interpret graphs until the late elementary grades,¹ such ability cannot be regarded as necessary on the part of the beginning pupil.

To be ready for geography, the child should also show "Interests other than reading" (Item B). Under this heading fall many significant specific items. The child who has become interested in "Gardening" (Item B-1-a) is undoubtedly helped to understand descriptions of agricultural activities, which abound in geography. The child interested in "Going to the movies" (Item B-1-b) has probably seen pictures of life in other countries. If a child is interested in "Listening to radio programs" (Item B-1-d), he may hear broadcasts from other states or even nations and will thus become aware of the existence of such places. Similar statements might be made about later items listed under the heading of "Interest."

Another requirement in readiness is "Tendency away from provincial-mindedness" (Item C). The child who is not provincial-minded has an "Interest in other races, religions, nationalities, and people of earlier times" (Item C-1), an "Acquaintance with people who have traveled" (Item C-2), and an "Interest in different types of workers" (Item C-3). If a child thinks only in terms of his own locality and people, if he has not heard people talk about foreign lands, and if he has seen few contributions from strange peoples, it would seem that, before he begins the study of geography, he would need to be given firsthand contacts with things pertaining to other lands.

More than 13 per cent of the co-operators added items of distance and direction. Only two such items, "Ability to indicate north, south, east, and west" and "Ability to find a place in the neighborhood by following given directions," were included in the list submitted by the investigator. From the character of the items listed

¹ a) C. O. Mathews, *The Grade Placement of Curriculum Materials in the Social Studies*. Teachers College Contributions to Education, No. 241. New York: Teachers College, Columbia University, 1926.

b) Katherine Colvin Thomas, "The Ability of Children To Interpret Graphs," *The Teaching of Geography*, pp. 492-94. Thirty-second Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1933.

under Section D, it is clear that the co-operators reporting consider the child's spatial orientation as an important prerequisite. Since many upper-grade pupils have been found to be unable to indicate the cardinal directions,¹ a few of the co-operators seem to expect a great deal of beginning pupils. For example, "To find routes to points of interest outside his neighborhood" (Item D-3-b) would involve a problem which many adults find difficult. The child would need to keep in mind his original direction and to be aware of every change in direction. According to Lord, keeping a sense of direction is extremely difficult for young children. A sense of distance would seem even more difficult to acquire than a sense of direction and would seem to be largely a matter of training. It is to be noted, however, that items of distance (D-4) and the more difficult items of direction were mentioned by only one or two co-operators.

The co-operators also considered "Ability in the interpretation of pictures" (Item E) as contributing to success in the initial study of geography. Eight different items were enumerated under this heading, and "Ability to use pictures as sources of information" (Item E-1) was mentioned most often. Though geography shows how one place differs from another, textbooks can present only a limited amount of comment on pictures. Therefore pictures are useful in geography for their presentation of a wealth of detail that cannot be stated in words, and ability to extend their interpretation accurately is valuable.

Next in frequency of mention is "Good intelligence and the beginnings of reasoning ability" (Item F). The specific item of intelligence most often mentioned was "Ability to see relationships" (Item F-1). As an example of kinds of relationships, several co-operators mentioned the influence of topography on the way people live and the adaptation of people to climatic and other geographic influences. To these co-operators geography probably means, primarily, the influences of the physical environment on man's mode of life. Undoubtedly the child should become aware of such influences as he

¹ a) Francis Everette Lord, "A Study of Spatial Orientation of Children," *Journal of Educational Research*, XXXIV (March, 1941), 481-505.

b) F. M. Gregg, "An Important Principle in Teaching Primary-Grade Geography," *Elementary School Journal*, XLI (May, 1941), 665-70.

goes forward with the study of geography. It is important also that he learn to retain an open mind and to look at all sides of the question in determining reasons why any group of people live as they do.

In connection with "Ability and interest in reading" (Item G), the enumeration of a large number of specific abilities of a study type suggests that the child beginning geography needs to be carefully prepared for work-type reading. The co-operators also mentioned the importance of the child's reading interest in geography and his acquaintance with the meanings of terms which are certain to arise in such reading. As many of these terms as possible should be introduced into his oral vocabulary before he meets them in a textbook.

A further prerequisite is "Habit of keen observation of environment" (Item H), which was added by six co-operators. In their judgment, observations of animals, boats, children of other nationalities, airplanes, homes, plants, stores, and ways of living in the community help to give the child an understanding of geography. Such observations undoubtedly enrich the child's experiential background and help him to relate verbal discussions to reality.

The remaining prerequisites mentioned—"Good habits of work" (Item I), "Good physical condition" (Item J), and "Ability in the use of oral English" (Item K)—are elements which, though intrinsically of a high degree of importance, are not characteristic of geography readiness alone. They were mentioned rarely doubtless because most of the co-operators took such prerequisites for granted.

CONCLUSION

In the light of the discussion of the data in Tables 1 and 2, it is possible to state the elements in geography readiness which are widely recognized by teachers and supervisors in Grades III and IV. Briefly these elements are (1) an adequate experiential background, (2) an interest in the more concrete phases of geography, (3) good habits of observation, (4) beginnings of reasoning ability, (5) a meaning vocabulary which includes the most common geographical terms, (6) ability in reading within one grade of the child's position in school, and (7) at least potential ability to orient one's self spatially. In a sound curriculum, effort must be made to build these items of readiness before children are expected to master geography.

PERSONALITY MALADJUSTMENT AS A CAUSATIVE FACTOR IN READING DISABILITY

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MANY attempts have been made to find a basic cause for reading disability. All attempts to ascribe reading difficulty to one and only one cause have been foredoomed to failure; for the chief fact which seems apparent at the present time is that the causative factors of reading disability are many and variable. This article will attempt to point out the part played by personality maladjustment as a causative factor in reading disability. "Personality maladjustment" seems to be a term that covers a multitude of sins and one that defies any limited definition. For the purposes of this article "personality maladjustment" will be defined as any behavior that deviates from what is generally considered the normal behavior of children in the school situation. A survey of the factors usually associated with reading difficulty follows.

MENTAL FACTORS

Intelligence is generally conceded to be a definite prerequisite for success in reading. Gates points out that children with an intelligence quotient of less than 70 seldom, if ever, learn to read connectedly and meaningfully (11: 97). They can often be taught to read on what approximates a first-grade level but beyond that they cannot go. Intelligence seems definitely to limit the progress of any child in reading, and there seems to be general agreement that progress in reading is probably completely conditioned by mental age. Ladd sums up her discussion of intelligence and reading:

It seems that correlations between reading and Binet intelligence tests average about .50 but may be greater or less according to the range of the group tested; the correlations between reading and verbal group intelligence tests are usually about .60 to .65, sometimes higher but seldom lower; and the correlations between reading and nonverbal group intelligence tests are very much lower [22: 21-22].

Generally speaking, then, both mental age and degree of brightness are associated with reading success.

PHYSICAL FACTORS

Anyone who has had clinical experience with reading cases is cognizant of the part played by poor physical condition as a causative factor of reading difficulty. Witty and Kopel tell of a case in which faulty metabolism limited both educational achievement and the intelligence quotient (30: 270-73). Endocrine dysfunction is also believed to limit mental development, as in cases of myxedema and cretinism associated with thyroid dysfunction. Early in the study of the psychology of reading, the eyes were recognized as all-important for successful reading. The discovery of means of studying eye-movements in reading led to the development of complicated apparatus to train eye-movements (a procedure of questionable validity, which need not be discussed here). Any serious physical deficiency of the eyes, excluding nearsightedness, seriously interferes with reading success. For the beginner in reading, visual acuity is of prime importance because the child is dealing with symbols which are both smaller and more complex than anything he has previously met. Hence it may safely be said that visual deficiency is a causative factor of reading difficulty, provided the defect is serious and appears at a time when contact with symbols is a new and novel experience. Ladd considers that the relation of reading to visual or auditory acuity is contingent or problematical (22: 22). C. T. Gray, after making oculists' examinations of fifty-nine subjects concluded that the results "showed clearly that eye defects have nothing to do with reading ability" (14: 122). The writer believes that it is necessary to point out that, if eye defects begin or appear *after* the child has had a successful beginning in reading, they will probably not affect his reading progress but that, if the defects exist at the time of the child's first contact with written symbols, confusion will possibly exist because of faulty perception and will give rise to later reading disability. The writer, however, knows of no study which will either refute or corroborate this hypothesis.

It might be well to mention here, under the heading of physical factors, a neurological theory of reading disability propounded by

Orton (24, 25, 26) to the effect that reading difficulty is due to confused cerebral dominance. The theory is postulated from the known cases of aphasia, alexia, and agraphia. These cases have tended to demonstrate that only one cerebral hemisphere has anything to do with reading, writing, and speech and that the other hemisphere—apparently identical in structure—is completely dormant, as it were, as far as controlling the language faculties is concerned. This unilateral dominance, according to Orton, is completely dependent on the handedness, eyedness, and footedness of the individual. Whether this dominance be dextral or sinistral is unimportant, but it must be complete and permanent. He also considers that this sidedness is hereditary to a great degree, if not entirely, and that social or parental interference with this sidedness results in confused dominance and resultant difficulty in the three forms of language: reading, writing, and speech. Confused dominance is empirically observed in the tendency of pupils with reading disabilities to make reversals, both static and kinetic, and to indulge in mirror-writing even after they have been informed that it is socially desirable to read and write from left to right. While serious doubts have been cast on this neurological theory, it seems debatable that the theory is completely without validity. It cannot be denied, however, that most remedial techniques pay little attention to the theory and still succeed in alleviating reading disability.

EDUCATIONAL FACTORS

Educational factors often enter into reading ability. Frequent absences at critical points in the teaching program have been cited as a cause of reading disability. However, many investigators, in studying large numbers of experimental and control groups, have found slight differences between the two groups in attendance and truancy. Ladd, after quoting three studies on the question, concluded that there is "little, if any, relationship between reading achievement and attendance" (22: 27). However, certain children have missed school and instruction at a critical point, namely, in Grade I, and have later met with reading difficulty. On the other hand, absence at other periods of school progress might have little effect on reading achievement in comparison with absence at critical points. A study

that differentiates between absences of a noncritical and a critical nature might be enlightening. Other educational factors often associated with reading are teaching methods and materials; teacher ability; and disinterest in the subject matter, which is closely related to lack of motivation. None of these factors, except the last, seems to have a great deal of relation to reading achievement.

Improper motivation of the reading program has been presented as a basic cause of reading difficulty by such men as Witty and Kopel (30: 25-66), and they have almost completely based their remedial program on the theory that, if the child is motivated to read, his reading ability will naturally improve. Boney (7: 58) has presented some persuasive data to support this theory. Lack of motivation as a causative factor must be given its due weight, but other factors must not be lost sight of. Motivation must be an integral part of any successful remedial program.

ENVIRONMENTAL FACTORS

The socio-economic status of the child and his general background have been considered as a causative factor in studies by Bennett (2: 63), Hincks (19: 5 ff.), and Ladd (22: 26). The results of these studies have been in no way conclusive. The writer's experience in clinical work with reading cases would seem to indicate that reading problems are recruited from all social and economic strata. Ladd, in her conclusions, states that "no marked relationships have been found between reading ability and gross scores on socio-economic status of the home" (22: 83). Her conclusion is indicative of the reports by other investigators. Witty and Kopel believe, in spite of Ladd's evidence, that home background has a relation to success in reading (30: 231). It seems logical that the use of language in the home would, to a great extent, influence reading ability insofar as a large hearing comprehension vocabulary would be built up. Witty and Kopel (30: 231) consider the number and the types of books and magazines in the home a conditioning factor in future reading ability. A high correlation has been demonstrated between vocabulary and reading achievement by Goodenough, who found a correlation of .79 between the vocabulary score on the Stanford-Binet scale and the reading score on the Stanford Achievement Test (13: 526).

Comprehension of spoken language is taken as a criterion of the limit of reading capacity by the Durrell-Sullivan Reading Capacity Test. The validity of this assumption has been challenged by W. S. Gray (15). In summary, then, it might be stated that, insofar as home background contributes to the reading opportunities of the child (by offering access to good books and magazines) and to the child's hearing vocabulary, in that extent the child's background has some relation to reading achievement. This relation is, however, merely a hypothesis and not an empirically proved fact.

PERSONALITY FACTORS

Many experimenters have commented that personality or emotional maladjustments are common in cases of reading disability. Hardwick (17: 425) comments that many reading cases show evidences of timidity and inferiority. This point is also commented on by Bennett (2: 33), Gates (10: 401), Hincks (19: 1), Hollingworth (20: 69-71), and others. Tulchin (29: 444) comes to the conclusion that undesirable behavior patterns or personality maladjustment may be traced to reading disability. On the other hand, reading difficulty may be traced to emotional traumata. When emotional factors are primary, disability and general lack of progress in other subjects as well as reading are likely to occur.

Ladd (22: 81) considers personality factors relatively unimportant as a cause of reading disability. She measured personality normality or abnormality mainly through the use of the Maller Character Sketches. This test, designed for intermediate-grade children, requires that they consider their own personalities in light of many sentence sketches of some hypothetical being. As a measure of personality this test has all the defects of the many other personality tests on the market, namely, that the individual, if he is honest, subjectively answers what he *thinks* he is like, or, if he is not honest, gives what he thinks is the desirable answer. The subjectivity of these tests, in the writer's opinion, throws a grave measure of doubt on the validity of the results obtained through their use. Ratings by teachers, also used in the Ladd study, have similar shortcomings, for a teacher's rating is completely conditioned by his own personality and his relations with the person he is rating. The status of

personality measurement apparently casts such a degree of doubt on the validity of test results that any use of them in a study would preclude reliance on the results or conclusions of the study.

Hincks (19: 5 ff.) presents some eight or ten completely documented but disorganized case studies which help very little in ascertaining the effect or the status of personality in reading problems. Several of her cases showed definite personality maladjustment, but there are too few data to show whether the maladjustment was a result or a cause of the reading problem.

Several writers believe that reading difficulty is itself a cause of emotional maladjustment and scoff at the idea of personality trouble as a cause of reading disability. The situation approaches the level of the controversy about the hen and the egg. The opinions of the educational people on the subject can be summed up in two quotations, one by Gates and the other by Witty and Kopel. Gates reports:

If serious difficulty in reading disrupts a pupil's school career, it may be expected that it will disturb his personal and social adjustment. There is much evidence that failure in school is a major catastrophe to many children and that general maladjustment is a frequent consequence. In one hundred cases selected at random from a list of "disabilities" studied by the writer, the following types of unfortunate adjustments were noted. In the list which shows the number out of one hundred, some children appeared in more than one category.

1. Nervous tensions and habits such as stuttering, nail-biting, restlessness, insomnia, and pathological illnesses—10 cases.
2. Putting up a bold front as a defense reaction, loud talk, defiant conduct, sullenness—16 cases.
3. Retreat reactions such as withdrawal from ordinary associations, joining outside gangs, and truancy—14 cases.
4. Counterattack; such as making mischief in school, playing practical jokes, thefts, destructiveness, cruelty, bullying—18 cases.
5. Withdrawing reactions; including mind-wandering and daydreaming—26 cases.
6. Extreme self-consciousness; becoming easily injured, blushing, developing peculiar fads and frills and eccentricities, inferiority feelings—35 cases.
7. Give-up or submissive adjustments, as shown by inattentiveness, indifference, apparent laziness—33 cases.

In only eight cases was there evidence that the pupil developed a constructive compensatory reaction, such as special ability in drawing or singing or dramatics [12: 205].

Witty and Kopel have the following to say:

In the Northwestern University Psycho-educational Clinic we found that fully 50 per cent of seriously retarded readers are characterized by fears and anxieties so serious and far-reaching that no program of re-education could possibly succeed which did not aim to re-establish self-confidence and to remove anxieties [30: 231].

Therapy was designed to stress success and to minimize failure, with a definite endeavor to understand the child and his trouble in relation to reading and personality.

Reading disability has received spasmodic interest at the hands of psychoanalysts and psychiatrists, who have obtained varying results. Their approach, naturally, is from the emotional angle, and, in the eyes of many educators, they have overemphasized that factor to the exclusion of educational therapy, with resultant failure in bringing about a cure.

Several studies by the psychiatrists are available, the most persistent inquirer being Blanchard (4, 5, 6, 16), who in her clinical work has apparently run across more reading cases than has any other investigator. Throughout her studies she has used the case method, with its many drawbacks. In one place she says, "The basis of the difficulty may be found . . . in the emotional experiences of the child during his first attempts to learn to read" (4: 775). This statement is not incompatible with the beliefs and convictions of the educational investigators inasmuch as the statement implies that emotional maladjustment is not the cause but rather the outcome of the reading difficulty. Emotional difficulty does, however, exist as an aggravating and magnifying factor in continued disability. This concept of emotional experiences during the child's first attempts to read seems to persist in many, if not all, of the cases reported by Blanchard. These emotional experiences remain as dynamic forces in the child's unconscious mind and are readily activated by a return of the original emotional situation—the reading situation. In one instance Blanchard (5: 552-56) cites a case whose problem was cured through what she called a process of reconditioning, based on Watson's theory that reconditioning depends on the tying-up of a learning situation with an established and unconditioned visceral response (in this case the appetite for candy). In general the therapy,

which is applied in the cases where emotional factors are strongly associated with the reading situation, is an attempt to dissociate these concomitant factors. For example, the father who had consistently attempted to teach his boy to read by explosions of temper and invidious comparisons was persuaded to change his tactics and to leave the child alone. With tutoring and the absence of the father's help, the boy's disability was soon cleared up. In many of the cases cited by Blanchard (5) therapy was directed as much to the parents as to the child.

It might be pointed out, and rightly, that in cases similar to those suggested above the causative factor is not really emotional maladjustment. A difficulty probably existed before the emotional factor entered into the situation and succeeded in making it worse. The child, because of his realized disability, has built up feelings of inferiority, timidity, withdrawal into a fantasy life, etc. He may, if he is of strong psychic fiber, build up some healthy compensatory activity, such as drawing or handcraft, but more often than not he merely retreats from his problem and becomes mildly neurotic, at least as far as reading is concerned. Blanchard concludes one of her studies: "Unless adequate and socially acceptable compensations for the feeling of inferiority are developed, personality and behavior deviations are apt to arise" (4: 787).

No mention has yet been made of a case in which emotional difficulty preceded the reading difficulty and was a true and complete cause of the reading disability. The writer has been able to discover in the literature only one such case, reported by Groves and Blanchard (16: 283-302). This case is of interest because of the fact mentioned above and because it was cured by means of psychoanalysis. An eight-year-old boy had remained for two years in the first half of Grade I without learning to read or write. His writing was characterized by reversals, misspellings, and a propensity to make queer marks which he called "Chinese." He was an illegitimate child, who at the age of three years had been deserted by his mother when she gave birth to a girl. He was placed in a foster-home, where he learned to love his foster-mother but was removed at the age of four to another foster-home. Each removal was characterized by infantile re-

gression and complete loss of sphincter and bladder control. Upon referral to the clinic he was still subject to enuresis. At home he was fearful and submissive, in school overactive and inattentive. His conversation was illogical and seemingly meaningless. The analysis, which lasted over a period of a year, brought out the following data. The inability to read and the misspellings were as closely related to his emotional conflicts as were his other neurotic symptoms—the enuresis, illogical conversation, etc. For him reading was an aggressive masculine activity and as such had to be feared for two reasons. The content of his early interviews showed that reading meant identification with the father (whom he had never known), but attempts at this identification were at first on such a hostile and sadistic basis that his guilt and fear of punishment for these aggressive fantasies interfered with the process of identification, until he received help from the therapist. His miswritings, misspellings, and “Chinese” marks served as disguised expressions for unconscious and repressed impulses and emotions, as the fantasies he told in connection with them revealed. Also, just as the neurotic person turns the aggression toward others back upon himself and very often atones for guilt and satisfies a need for punishment in his symptoms, this boy, by his educational failures, created a situation in which he atoned for his guilt over his repressed feelings and emotions and secured the punishment which he felt he deserved by being reproved, ridiculed, and even punished. The treatment ended with a promotion for the boy and a much more adequate adjustment to reality in general. In such a case any educational remedial techniques would have met with failure. Of course it is highly debatable whether such a case (requiring psychoanalytical treatment) is frequently found. However, acknowledgment of the existence of these cases may prove of value when a reading case does not respond to normal remedial teaching.

Low (23) reports several cases similar to the one described above. In one instance an emotional conflict was identified with geography and brought about complete inability to do anything associated with the subject. After psychoanalytical treatment, however, the child resolved his emotional conflict, with concomitant success in

his study of geography. In another case a woman of forty had an arithmetic disability again caused by an emotional conflict which had come to be identified with arithmetic. These emotional identifications with an academic subject seem to be a real thing and should be recognized by the educator who handles cases of severe disability. It is not the writer's belief that herein lies the open sesame to all disability cases but merely that the possibility must be kept open for consideration in cases where there is little or no reaction to the conventional treatment.

There are many inadequacies in the case-study approach to reading disabilities which cause one to hesitate before placing great credence in any single therapeutic approach. It has been amply demonstrated that the preponderant number of reading disabilities respond to a straight educational approach and involve little or no personality maladjustment. Much more study of the problem is necessary before definite conclusions can be drawn concerning the role played by personality as a causative factor, or even as an accompanying factor, in reading disability.

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MAKING PUPIL ACTIVITIES SERVE CONSTRUCTIVE ENDS

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NATURAL science and the social studies are most useful in the elementary-school program when they are so organized and taught that children learn to interpret, and to participate in, the world in which they live. The results of pupil activity should be more than the acquisition of information.

Teachers of an elementary-school unit, including Grades I to VI or VIII, must plan together in order to build consistently upon growth as it is achieved in varying quantities by pupils from year to year. The experience and guidance provided must depend on the available educational resources of the school and the community, with such extensions as local finance and administration will permit. The fields for profitable endeavor by children are discovered only by exploring their activities in home and community, their thoughts and reading in school and elsewhere. If these are found to be few and barren, the school must take the time and means necessary to provide, through visual education, radio, reading, trips, shop and laboratory experiences, the background that is lacking. On the present interests of their pupils, skilful teachers and supervisors can build new experiences that have an immediate tendency to promote the following objectives:

1. Wide reading of books and periodicals on geography, history, biography, science, and industry
2. Creative expression in art, language, number, and dramatics and in construction in wood, metal, clay, and textiles
3. Attention, with interest, to local items bearing on living conditions, social customs, industrial and commercial activities
4. The use of simple reasoning through recognition of:
 - a) Contrasts and likenesses in quantity and quality
 - b) Cause-and-effect relations

5. The beginnings of constructive thinking through the making of:
 - a) Simple inferences based on observations, readings, experiments, and personal interviews
 - b) Elementary hypotheses
6. Creative imagination, beginning with such expressions as "If ———," "I wonder ———," "What do you suppose ———?"
7. Social consciousness, as noted in spontaneous expressions of:
 - a) Sympathy with groups and individuals
 - b) Beliefs in the rights and duties of groups and individuals
8. Acquisition of techniques for group organization through participation in thinking and planning with the class, through exercising leadership, through compliance with the wishes of others, and through co-operation
9. Practice in group activity through sharing in:
 - a) Planning the execution of a project
 - b) Completing an enterprise
 - c) Defending some point of view, way of living or working
 - d) Group recreation

Objectives such as these are not limited to any age, grade, or mental level. The teacher's problem is to help all children participate in suitable activities at their respective stages of development and capacity. The measure of success will be the observable growth of children in their ability to use these skills over periods long enough to provide adequate experience and practice. The activities outlined above are not intended to provide a "method" for "learning" geography, history, or science. These divisions of subject matter, as such, are of no significance to children. They are useful to adults in making categories of facts and concepts when it has become necessary to record them for future reference. Children must ultimately learn to use these classifications, but such use should follow and not precede their own discoveries and conclusions.

Obviously an educational program designed to promote the types of growth listed above must be organized into jobs, projects, and enterprises continuing over periods of days, perhaps weeks. Mere descriptions of things seen, done, and read about, with repetitious expositions in writing, have little permanent educational value. Pupils should be led to study areas of environment and periods of time sufficiently broad to give opportunity for abundant practice in planning, observing, comparing, inferring, evaluating, recording, and, at times, thoroughly memorizing group decisions and statements

deemed worthy. Thus, instead of exhaustive study of minute details of geography, history, and science, there should be teacher-guided pupil planning that will encourage children to search for information, organize their findings, and reflect on the data sufficiently to stimulate many forms of expression.

A unit of work or a series of class periods, then, should be planned for its contemporary value—its relation to existing interests—and for its promise in furthering for children the understanding of their environment. The activities that ensue in the study of a unit are not to be considered “devices” or subtle motives for learning; they are, in themselves, the essence of a learning process. The mental, emotional, and social development of the pupils must, if it comes at all, result from acts of *doing*, with all the intricate neural and muscular co-ordinations involved. The personal effect of an activity is made or lost in the doing of it. The mere *saying* or *writing* of some statements about the results of a study has value mainly as a record or as an exercise in English expression. It may even create distaste for the entire unit. However, some records of facts and quotations collected, of new relationships noted, and of generalizations made by a class are worthy of preservation in neatly prepared pamphlets.

The evaluation of pupil activities becomes objective when some product or some concrete evidence of change in the pupil's behavior is submitted. The keeping of records of an activity supplies useful evidence of organization, scope, and type of activity experienced by pupils. The ultimate measure of success, however, must be applied to the effect of the activity on the behavior of individual pupils. This effect can best be determined by those who know each child through careful observation over somewhat extended periods of time. Thus continuous case studies of pupil behavior are seen to be important. These, too frequently, never go beyond descriptions of characteristics. Case studies for evaluation should note the pupil's reactions to experience and the changes in attitudes and interests, as well as knowledges and skills. The changes noted need not necessarily be the spectacular changes but rather those that indicate growth in intensity and quality of attitudes and interests. Evaluation based on such evidence will give teachers new and valuable clues for further guidance in the selection of appropriate activities and the part that each pupil should take in their development.

NEW TRENDS IN PRIMARY-GRADE READERS

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TYPES OF CHANGES IN READERS

IN RECENT years we have witnessed marked changes in the books offered as primary-grade readers. Outstanding among these changes are three definite trends: first, that toward extensive use of color and pictures; second, toward lessening of vocabulary burden; and, third, toward an increase in repetition of the basic vocabulary and toward greater integration among successive readers. If studied carefully, these trends may be crystallized and applied as criteria in the selection of primary-grade books.

Use of color and pictures.—The known preferences of children give ample support for the use of color and of colored pictures. Large, full-color pictures, particularly those in red, yellow, or blue, with a high degree of saturation and brightness, are preferred. However, the lavish use of such pictures is not always in keeping with the facts known regarding their purposes. Miller¹ has shown that just as adequate reading may occur without pictures as with them. This finding is somewhat disturbing, since in some recent books as much as a fourth to a half of the space is devoted to pictures. Mere number, variety, or beauty of pictures is no justification for their use. They must be definitely related to the adjoining text. The pictures should have humor, action, and story-telling qualities. They should contain a few bold, central groups and should show little detail unless striking in nature. Pictures inserted merely for decorative purposes or to attract the eye of an adult purchaser are of little value to the beginning reader. It is apparent that the factors to be considered are the nature of the probable use of pictures and their color, size, extent of details, etc.

Lessened vocabulary burden.—A trend toward greater repetition and lessened vocabulary burden is present in all levels of recent pri-

¹ William A. Miller, "Reading with and without Pictures," *Elementary School Journal*, XXXVIII (May, 1938), 676-82.

mary-grade readers. The number of different words used in readers for each level is decreasing each year. For example, in the primers listed by Hockett,¹ with publication dates before 1928, the average number of different words was 369. This vocabulary load rapidly decreased, so that in 1930-31 the average primer had only 304 different words. By 1936-37 the number had dropped to 247. Thus the vocabulary burden of primers has been reduced by one-third; in other words, primers of recent copyright dates are only two-thirds as difficult in this respect as those of a decade ago. The same trend can be seen in first readers, in which the decrease has been from an average of 644 words in those published before 1926 to 462 words in those of 1936-37, a drop of 28 per cent in the number of different words.²

This trend toward lessened vocabulary burden in readers for the first two years is summarized in Table 1. Other vocabulary characteristics could be studied, but these give a fairly comprehensive estimate of a book's difficulty. To aid in interpreting the table, we may define each of these characteristics. The total number of words is, of course, a measure of the length of the book. Adequate length is necessary to insure sufficient repetition of the basic vocabulary and distinguishes readers from picture-books. The number of different words is the most direct measure of a reader's difficulty. It naturally follows that the greater this number, the more difficult the reading. When the number of different words is determined, the common practice is to count, as different words, all words except possessive and plural forms.

Vocabulary repetition.—Mastery of the basic vocabulary can be secured only by frequent repetition. The extent of repetition can be found for any book by dividing the number of running words by the number of different words. This division reveals how many times the average word is repeated in the entire book. The average number of new words to a page is a supplementary measure of difficulty, which is dependent on the factors of length and the number

¹ John A. Hockett, *The Vocabularies and Contents of Elementary School Readers*. State of California Department of Education Bulletin No. 3. Sacramento, California: State Department of Education, 1938.

² *Ibid.*, p. 31.

of different words. Books which are rated poor in these factors (those that are too short or that introduce a large number of words) would also introduce an undesirably large number of new words to a page. A final yardstick is the percentage of words repeated six times or more each. No one knows exactly how many times a word

TABLE 1
VOCABULARY CHARACTERISTICS OF AVERAGE PRIMARY-
GRADE READERS*

	Preprimers	Primers	First Readers	Second Readers
Total number of words:				
Average.....	842	5,093	8,698	20,968
Interquartile range.....	574-1,054	4,315-5,600	7,158-9,679	17,697-22,427
Number of different words:				
Average.....	69	275	565	1,022
Interquartile range.....	55-95	225-325	485-645	921-1,149
Number of times words are repeated:				
Average.....	11	18	15	19
Interquartile range.....	8-16	15-22	13-18	17-23
Number of new words per page:				
Average.....	1.7	2.0	3.2	4.2
Interquartile range.....	1.4-2.0	1.6-2.7	2.6-4.3	3.6-5.1
Percentage of words used six times each:				
Average.....	66	69	52	.....
Interquartile range.....	41-79	56-82	46-65	.....

* This table is based on the data presented in the writer's articles, "Problems in Primary Book Selection," *Elementary English Review*, XVIII (January, February, April, and May, 1941), 5-12, 32-59, 139-48, 175-81.

must be repeated to insure mastery, for intelligence, vocabulary ability, previous reading experience, and other factors influence the situation. However, repetition of a word six times is probably close to the minimum. Since Hockett and his workers made a count of the number of times each word was repeated in a large number of books, we have been able to use his data in establishing this standard.

As is shown in Table 1, the average preprimer contains a total of 842 words, composed of about 69 different words repeated, on the average, 11 times each. About one and one-half new words are intro-

duced on each page. Of all the different words, two-thirds are repeated six or more times each. The same data are shown in the table for primers, first readers, and second readers.

METHODS OF ACHIEVING INTEGRATION AND VOCABULARY REPETITION

The trends toward greater repetition and integration are evidenced in a number of ways. These trends may be used as yardsticks for the selection of new readers if we study the characteristics of new books. Better integration, as well as greater repetition, is accomplished by presenting parallel, interlocking, or duplicate readers; by using presentation and absorption units; and by using extensive supplementary reading materials and readers of between-grade difficulty.

Parallel readers.—Parallel or companion readers usually consist of a series of two or three readers of the same difficulty level and with highly similar vocabulary and content. There may be two reading series, which may be used independently but are primarily intended to complement each other, or merely two or three books of the same series and same reading level. The first of the companion books usually presents the major portion of the new vocabulary. The second book repeats most of the basic vocabulary and introduces a few new words.

The Good-Companion Books are an example of an entire reading series written as companion books to the basal readers, *The Work-Play Books*. For example, the *Good-Companion* primer, *Nick and Dick*, repeats almost 80 per cent of the vocabulary of the *Work-Play* primer, *Peter and Peggy*. A similar integration is achieved in *The Children's Own Readers* and *The Children's Own Readers, Companion Series* at the preprimer level. More recent examples of the use of parallel or duplicate readers within a single reading series are the two preprimers of *The Alice and Jerry Books, Reading Foundation Series*, the three preprimers and two books of each other level of *Easy Growth in Reading*, and the three preprimers of the new *Curriculum Foundation Series*.

By some publishers the concept of parallel readers has been carried much beyond the relatively simple provision of duplicate read-

ing books. Scott, Foresman and Company, for example, has grouped science, nature, and social-science textbooks around the *Elson Basic* reading series. Each of these various textbooks has been constructed so as to parallel in vocabulary the corresponding reader of the same level. The Macmillan Company now offers a similar unified reading program based on the *Work-Play* readers. At each reading level a companion reader, a fanciful or literary reader, a social-science textbook, a science textbook, and a health textbook are provided. Each of these closely resembles the basal *Work-Play* reading books in vocabulary. Both the *Elson Basic* and *Work-Play* readers have recently been revised, but in all probability the publishers will continue the practice of providing parallel books in other content fields. Macmillan Company has already offered the *Democracy Readers*—social-science readers which are integrated with *The New Work-Play Books* in vocabulary.

Presentation and absorption units.—Another technique for achieving repetition is the use of the so-called "presentation and absorption units." This method is best exemplified in *The Alice and Jerry Books, Reading Foundation Series*. The primer, *Day In and Day Out*, presents a total of 222 words. Seventy-eight of these are derived from the preceding preprimer vocabulary, and 144 are new words. In the initial presentation unit in *Day In and Day Out*, forty-two new words are introduced in the space of forty-two pages. In the absorption unit of twenty-two pages which follows immediately, only nine more new words are presented. It is apparent that the function of the presentation unit, as its name would imply, is to present the major portion of the new vocabulary. The absorption unit provides easy reading material which repeats the new vocabulary and is relatively free from vocabulary difficulties. This technique of presenting new vocabulary is probably superior to the older method of introducing new words at a uniform rate throughout the entire book, first, because the alternation of presentation and absorption units corresponds to the spurts and plateaus of the usual learning curve and, second, because the reading of easy material is an enjoyable and stimulating experience for children of all levels of reading ability. There is no better tonic for stimulating interest in a task than recognized success, and in *The Alice and Jerry Books*

this opportunity for easy success is offered by means of the absorption units. The provision of supplementary reading materials within the covers of the basal book also has the advantage of economy of cost—an additional point in its favor when contrasted with the unit reading materials discussed later.

Unit materials.—Unit reading materials are another method of providing for greater repetition and integration. Separate little booklets are offered for supplementary reading after the completion of each unit in the basal reader. These booklets resemble the unit already read in vocabulary, characters, and content. In the *Unit-Activity* readers, a series in which this technique was first given widespread application, unit readers are offered as supplementary material for each unit of the basal primer and first reader. Each unit-reader deals only with the topic presented in the basal textbooks; thus it expands the child's knowledge and interests in this specific area and provides repetition of the basal vocabulary. A recent series, *The New Work-Play Books*, also offers a group of twenty-three unit-readers keyed to the basal books of the primer to the third-grade level.

The function of these unit reading materials is to provide further reading at an easy level on specific topics related to the center of interest. It is a common practice to relate a certain portion of the classroom activities to the materials presented in the basal reader. Trips, oral discussions, art and music work, rhythmic, model-building, and similar activities are often organized around the theme presented in the reader. When this method of integration is employed, additional reading materials which do not present vocabulary difficulties are sought. As utilized in the *Work-Play* and the *Unit-Activity* readers, the unit reading materials supply this need. These materials are also advantageous in that they enable children to secure the thrill of being able to read a "new book" or a book other than the basal reader.

Between-grade readers.—Intermediate or between-grade books are of two types: those intended for supplementary use while the basal textbook is read and those intended for use between the successive books of the basal series. Examples of both types are found in the *Reading Foundation Series*. *I Know a Story*, of *The Wonder-Story*

Books, is composed of a vocabulary of 225 different words, 72 per cent of which appear in the preprimer, primer, and first reader. The stories of this supplementary book are to be read after the completion of the various units of the primer and the first reader. For example, "The Gingerbread Boy," the first story in *I Know a Story*, may be read after the first sixty-four pages of the primer. It would then introduce only thirteen new words in its twenty-one pages. Of course the stories may be read later with even less vocabulary difficulty.

Down the River Road, of *The Alice and Jerry Books*, is of the between-grade type. It is intended for use between the first and the second readers as a means of developing reading readiness for the second reader. Its vocabulary repeats all the words of the preceding books which will be encountered in the second reader. As new vocabulary, it introduces only 73 words, 70 per cent of which are from the second-reader vocabulary.

The Children's Own Readers, *Companion Series*, offer several books of between-grade difficulty. Each of these (there is a book between the primer and the first reader, between the first and the second readers, and between the second and the third readers) repeats about 65 per cent of the vocabulary of the preceding book and introduces the child to about 20 per cent of the words of the next book.

These intermediate or between-grade books serve several useful purposes. They provide for extensive repetition of the basal vocabulary; serve as supplementary, easy reading materials; facilitate the transition from one reader to the next; establish a readiness for the concepts and vocabulary offered in the new reader; and, when a summer vacation intervenes between grades and causes loss of reading skill, these books help the child to recover his former level of skill.

SUMMARY

This article has summarized several trends in recent primary-grade reading books and has suggested that these tendencies be used in appraising other textbooks when they are being considered for adoption. The use of color and of colored pictures should be evaluated in terms of children's preferences and the probable utility of the illustrations. Readers must be of average or less-than-average

difficulty in vocabulary characteristics in order that they, the tools of reading, may not prove a barrier to the acquisition of reading skill. A reading series should provide for extensive repetition of the basal vocabulary and for integration of the reading materials, either through provision of parallel readers, unit reading materials, or books of between-grade difficulty; or through the use of some technique of construction which accomplishes the same purpose, such as presentation and absorption units.

READING TEXTBOOK SERIES MENTIONED

GINN AND COMPANY:

Mary E. Pennell and Alice M. Cusack, *The Children's Own Readers*, 1936 (new edition).

Mary E. Pennell, *The Children's Own Readers, Companion Series*, 1932.

MACMILLAN COMPANY:

Arthur I. Gates and Miriam Blanton Huber, *The Work-Play Books*, 1930.

Arthur I. Gates, Franklin T. Baker, and Celeste Comegys Peardon, *The Good-Companion Books*, 1936, 1937, 1938.

Arthur I. Gates, Miriam Blanton Huber, and Celeste Comegys Peardon, *The New Work-Play Books*, 1939.

Prudence Cutright and W. W. Charters (editors), *Democracy Readers*, 1940.

ROW, PETERSON AND COMPANY:

Mabel O'Donnell and Alice Carey, *The Alice and Jerry Books, Reading Foundation Series*, 1936.

Miriam Blanton Huber, Frank Seely Salisbury, and Mabel O'Donnell, *The Wonder-Story Books, Reading Foundation Series*, 1938.

SCOTT, FORESMAN AND COMPANY:

William H. Elson and William S. Gray, *The Elson Basic Readers*, 1930, 1931, 1934.

William S. Gray and Others, *Curriculum Foundation Series*, 1940.

SILVER BURDETT COMPANY:

Nila Banton Smith, *The Unit-Activity Reading Series*, 1935.

JOHN C. WINSTON COMPANY:

Gertrude Hildreth, Allie Lou Felton, Mabel J. Henderson, and Alice Meighen, *Easy Growth in Reading*, 1940.

UNIFYING IDEAS IN ARITHMETIC INSTRUCTION

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DURING the past few years much of the literature on the teaching of arithmetic has emphasized the need for teaching ways of thinking about quantitative situations in contrast with the former emphasis on arithmetical operations. This change in emphasis is probably due to a number of factors, chief among which may be listed (1) the results of research in educational psychology and (2) a changing philosophy of instruction in arithmetic, which corresponds more closely with Dewey's philosophy of education.¹ This change in the teaching of arithmetic centers in the general ideas concerning mathematical structures—ideas on the growth of arithmetic as a system and on the desirability of arranging the teaching situation so as to stimulate the thought-processes of the pupils.

The emphasis on general ideas immediately raises new problems in instruction. One of these problems is to determine which of the general ideas permeating the entire structure of arithmetic shall be selected for teaching and how the ideas selected shall be woven more explicitly into the instructional program in the elementary school. A closely related problem is that of weeding out ideas which do not serve to unify the instruction in arithmetic—which, in fact, frequently tend to cause difficulty in mastering the systematic art of computation as well as the more essential elements of arithmetic. As illustrations of the latter undesirable items, such items as the following might be mentioned: (1) teaching that addition means "more"; (2) directing pupils to keep the right-hand column straight; (3) teaching that in multiplication the product is always larger than either the multiplier or the multiplicand. Many other examples could easily be enumerated by teachers of arithmetic who see and teach arithmetic as a systematic way of dealing with the quantita-

¹ John Dewey, *How We Think*. Boston: D. C. Heath & Co., 1933.

tive situations of life. This article will deal primarily with the general ideas which tend to unify the program in arithmetic in the elementary school and in the junior high school.

In discussing the problem of explanations of new processes, Wheat says:

The trouble with new explanations for new processes is that the pupil is not encouraged to carry over from any one explanation or process any idea that may help him to understand the new process as he comes to it. The pupil is unable to see any connecting link between the different explanations or between the different processes.¹

That this statement makes a just criticism of instruction, not only in the elementary school, but also in the secondary school and the college, will be conceded by anyone familiar with mathematics programs. Much of the instruction in mathematics has been of the mechanistic type in the sense that the pupil waits for the teacher to tell him how to work a particular problem, and then the next, and then the next. The mechanistic point of view would seem to offer no hope for the arithmetic of the future. A mechanistic arithmetic, or any other subject mechanistically conceived, leads nowhere—it is like a machine which must wait for someone with intelligence to direct its operations. To have arithmetic operate in life in a meaningful way involves thinking in terms of quantity. This type of thinking is possible only with meaningful symbols and meaningful operations. Mechanisms beget mechanics only; but ideas, concepts, and generalizations lead to more ideas, concepts, and generalizations, which lead on again into a never ending series.

What, then, are some of these unifying ideas? In particular, what are some of the unifying ideas that arithmetic textbooks as well as teachers are beginning to emphasize? A review of the textbooks on the teaching of arithmetic reveals that the following are some of the many general ideas which are given places of importance: regrouping in addition; grouping by tens; positional notation; relations of operations; the relationship between decimal fractions, common fractions, and percentage; dependence; proof; approximations; and error in measurement.

¹ Harry Grove Wheat, *The Psychology and Teaching of Arithmetic*, p. 146. Boston: D. C. Heath & Co., 1937.

As a specific illustration of how a general idea can permeate the entire course of instruction in arithmetic, consider the following aspect of arithmetic. Teachers almost invariably use the question mark when providing exercises of the following type: $3 + ? = 8$; $15 - ? = 9$; $2 \times ? = 12$. Now consider replacing this question mark by the letter n representing, of course, the word "number": $3 + n = 8$; $3 \times n = 24$, etc. Some persons will undoubtedly say that the system of notation used is a minor detail. Not at all! Not only does the use of n give the pupil practice with a form employed in the seventh- and eighth-grade programs, but it affords foundational instruction in ideas and symbols which are of immense importance in dealing with many types of problems. Furthermore, after the fundamental combinations have been taught, the question mark is obsolete; it is not used in this way in the later grades. It is wasteful to teach a specialized use of the question mark which is seldom used in life or in school. The use of the letter n should be no more difficult than the question mark, for pupils at an early age are familiar with the use of initials for names.

How does this type of thinking help in Grades V, VI, and VII? Textbooks always consider the three cases of percentage, the three kinds of fraction problems, and the three kinds of decimal-fraction problems. Books on methods in arithmetic go into great detail about how to teach each case as it arises. Teachers know that teaching these three cases involves a great deal of labor and often a liberal percentage of failure in learning the distinction between the different kinds of problems. Of course, in reality there are only three kinds of problems (not nine) corresponding to the three cases in percentage, which run throughout the work in fractions, decimals, and percentage. If teachers would replace the question mark by a letter and teach the children to translate the language of the problem into terms of the letter n , they would not have to teach the three cases in percentage, or in fractions, or in decimal fractions, and much of the instruction in the upper grades would be simplified. A few examples will probably clarify the point.

In Grade II or III the teacher meets the following kind of problem: "Johnny has 6¢ and wishes to buy a ball which costs 15¢. How much more money will he need?" The problem is really asking:

"6 plus what number is equal to 15?" A short way of writing this statement is: $6 + n = 15$. This approach supposes that the teacher has taught the form, $5 + n = 8$, and similar forms before presenting the problem, just as she has previously taught the form, $5 + ? = 8$. If the pupil is taught that the problem is merely to translate the "word problem" into symbols with which he is already familiar, the teacher will be laying an important foundation for future work in arithmetic. This same procedure should be used in subtraction, multiplication, and possibly in division. This proposal does not advocate the elimination of automatic response to situations of this type. The form, $6 + n = 15$, merely shows the correspondence between the "word problem" and the symbols previously used.

Consider the type of problem which a pupil meets when studying fractions, particularly a problem corresponding to one of the cases in percentage: "Irene has 40¢ and wants to buy candy costing 64¢ a pound. What part of a pound of candy can she buy?" In teaching this problem by any method, the teacher will undoubtedly use the words: "40 is what part of 64?" When translated into symbols, this phrase becomes: $40 = n \times 64$. If we assume that, before working this problem, the pupil has had experience in this type of thinking (for example, that he has had $40 = n \times 8$), he knows that, when confronted with $40 = n \times 64$, all he has to do is to divide the product (40) by the known factor (64) to obtain the desired answer. The symbolic form is almost a direct translation of the problem.

Other problems are even more direct translations. Take the problem: "The school bought basketball suits which were quoted at \$10 each, but they saved \$2 a suit by paying cash. The saving was what per cent of the original price?" The problem asks: "2 is what per cent of 10?" or, in symbols, $2 = n \times 10$. The pupil is again on familiar ground and knows how to proceed. Of course it is assumed that the teacher has previously taught that percentages can be written as fractions or as decimals and that finding an answer in percentage is the same as finding it in fractions or in decimal fractions.

One could continue, without end, to enumerate problems illustrating the advantage of teaching the pupil to translate sentences into symbolic form. By using this method, the teacher does not have

to teach three cases of percentage or three kinds of problems in fractions. All the pupil needs is the ability to say in symbols what the problems originally said in words. Is it easier than teaching the "three cases"? As one teacher recently said, "Almost anything is easier than the three cases."

In summary, then, all problems of the type, "6 is what per cent of 10?" "6 is what part [fraction or decimal] of 10?" become: $6 = n \times 10$.

Problems of the type, "10% of what number is 50?" " $\frac{1}{10}$ of what number is 50?" ".1 of what number is 50?" become: $.1 \times n = 50$.

Problems of the type, "What is 66% of 14?" "What is $\frac{2}{3}$ of 14?" "What is .66 of 14?" become $n = .66 \times 14$. The immediate applicability of this idea to interest problems involving base, rate, and percentage is obvious. Similarly, it may be used for areas of rectangles and triangles where the area and the base (altitude) are given and the altitude (base) is to be found. In fact any situation which may be represented by the formula $Z = KXY$ [K = constant] can be taught by the translation method. After a little thought one finds that there are surprisingly large numbers of situations in arithmetic which fall under the "three-kinds-of-problems" class. The relation between distance, rate, and time is another instance of the specific application of the formula $Z = KXY$.

Briefly, the advantages of this approach over the "three kinds of problems" are (1) that a significant percentage of the problems in the upper grades can be included under this principle of translation into symbols, and thus the three cases in percentage and the "three kinds of problems" can be eliminated in all situations where three variables occur; (2) that, since it is a general principle permeating all mathematics, it sets the stage for a mode of thought of great value to the pupil in eighth- and ninth-grade work; (3) that the advantages of symbolism are immediately apparent to the pupils, and junior high school teachers will not have to "sell" symbolism to them; (4) that the pupil learns how to simplify a complex situation by expressing in symbolic form the relationship involved in that situation. The teacher will have helped the pupil cross the first bridge in understanding mathematics as a language.

Is the approach educationally worth while? The answer will be in the affirmative if one believes with Judd that "the psychology of the higher mental processes teaches that the end and goal of all education is the development of systems of ideas which can be carried over from the situations in which they were acquired to other situations."¹ However, if one views arithmetic as a mechanism which needs to be learned for the sake of learning, the answer will be "No." To those teachers who believe that education must ever deal with ideas and generalizations and that it must teach arithmetic as a language of quantity, the usefulness of the approach recommended here is immediately obvious. To those who hold to the mechanistic view of arithmetic, the justification for the use of symbols is that a simpler teaching situation is obtained.

¹ Charles Hubbard Judd, with the co-operation of Ernst R. Breslich, J. M. McCallister, and Ralph W. Tyler, *Education as Cultivation of the Higher Mental Processes*, p. 201. New York: Macmillan Co., 1936.

SELECTED REFERENCES ON TEACHER EDUCATION¹

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THE references included in this bibliography were, with an exception or two, published between July 1, 1940, and June 30, 1941. These publications discuss significant issues relating to the education of teachers in elementary and secondary schools and in higher institutions. Four criteria were used in selecting from the much larger number of references published those included in this list: (1) objective analyses and statistical accounts of important aspects of teacher education; (2) comprehensive reports in the form of bulletins, yearbooks, and reports of proceedings; (3) preliminary analyses of significant issues; and (4) materials which are reasonably accessible.

706. AMERICAN ASSOCIATION OF TEACHERS COLLEGES. *Twentieth Yearbook, 1941*. Oneonta, New York: Charles W. Hunt, Secretary (% State Normal School), 1941. Pp. 172.

Includes the proceedings of the Atlantic City meeting of the association, emphasizing such topics as "Changing Social Aims in the Education of Teachers," progress of the teacher-education study, and "Twenty-five Years of the American Association of Teachers Colleges."

707. AMERSON, VERA MIGNON. "Quantity or Quality in Future Commercial Teacher Education?" *Educational Administration and Supervision*, XXVI (December, 1940), 701-4.

Discusses needed changes in policies and programs relating to the preparation of future teachers of commercial subjects.

708. ANDERSON, EARL W., LEITH, JOHN DOUGLAS, and STREBEL, RALPH F. (Editorial Committee). *Current Practices in Institutional Teacher Place-*

¹ See also Items 55 (Bosley) and 64 (*Teacher Education in Oregon*) in the February, 1941, number of the *Elementary School Journal* and Item 466 (Carley) in the September, 1941, number of the same journal; Item 202 (Fryklund) in the March, 1941, number of the *School Review*, Item 480 (Bailey) in the September, 1941, number, and Item 612 (Klein and Others) in the December, 1941, number of the same journal.

ment. Written by Thirty-five Members of the National Institutional Teacher Placement Association. Athens, Georgia: National Institutional Teacher Placement Association, with the assistance of the Division on Child Development and Teacher Personnel, Commission on Teacher Education, American Council on Education (Mary B. Bondurant, secretary, % University of Georgia), 1941. Pp. xii+186.

Describes current practices throughout the country contributed by thirty-five members of the National Institutional Teacher Placement Association.

709. AULT, J. W. "Selection as a Factor in Teacher-Education," *School and Society*, LII (October, 1940), 309-12.

Compares grade-point averages and scholastic-aptitude deciles of graduates in teacher education and in liberal arts and concludes that there is no significant disparity between the two groups.

710. BEDELL, RALPH, and POAGE, MAURINE. "The Nebraska Speech Improvement Program for Prospective Teachers," *Educational Administration and Supervision*, XXVII (February, 1941), 152-56.

Describes the nature of the program, diagnosis and incidence of defects, method of instruction, and evaluation procedures.

711. BEST, ERNEST M. "Trends in Teacher Education," *Journal of Health and Physical Education*, XI (December, 1940), 587-88, 633-34.

Discusses a series of trends in teacher education, with special reference to the fields of health and physical education.

712. BIGELOW, KARL W. "The Future of Teacher Education in America," *School and Society*, LII (November 9, 1940), 441-46.

Prophesies greater emphasis on social understanding, a broader knowledge of child development, more attention to planned firsthand experience and its integration with the study of books and with class activities, increased intimacy between professors and prospective teachers, and greater participation by the student in planning his own program.

713. BOARDMAN, CHARLES W. "An Experimental Approach to the Integration of Professional Courses at the University of Minnesota—A Progress Report," *Journal of Educational Research*, XXXIV (May, 1941), 672-78.

Discusses the results of an experimental study of an integrated program of professional study.

714. BRIGHT, HAROLD. "Principles and Practices in Experimentation, Demonstration, and Secondary-School Student-teaching," *Educational Administration and Supervision*, XXVI (December, 1940), 641-57.

Discusses the origin of the Training School of the Indiana State Teachers College at Terre Haute and the present program of experimentation, observation, and practice teaching in that institution.

715. BRINK, WILLIAM G. "Internship as a Means of Vitalizing Teacher Preparation," *Educational Trends*, IX (January-February, 1941), 13-17.
Discusses the principles underlying, and the operation of, the plan developed by the School of Education, Northwestern University.
716. BURNETT, R. WILL. "Opinions of Science Teachers and Their Implications for Teacher Education," *Teachers College Record*, XLII (May, 1941), 709-19.
Summarizes results of a national survey of opinions of science teachers concerning science education and the teacher of science.
717. COLSON, EDNA MEADE. *An Analysis of the Specific References to Negroes in Selected Curricula for the Education of Teachers*. Teachers College Contributions to Education, No. 822. New York: Teachers College, Columbia University, 1940. Pp. x+178.
Reports the results of an analysis of curriculums of thirty institutions that prepare white teachers and of eighteen that prepare Negro teachers to identify specific references to the Negro.
718. *The Commission on Teacher Education: A Brief Statement of Its Origin and Scope*. Washington: Commission on Teacher Education, American Council on Education, 1940. Pp. 18.
The first of two projected companion publications on the work of the Commission on Teacher Education offered to the public as a report of progress.
719. COOPER, HERMANN. "New York's Five-Year Program for Prospective Teachers in Secondary Schools," *Teacher-Education Journal*, II (September, 1940), 68-76.
Reviews the policies which led "to the adoption of a five-year program of preparation for the certification of secondary-school teachers in New York State."
720. CUNNINGHAM, HARRY ALLEN. *Material Facilities Needed in the Training of Intermediate Grade Teachers in Science*. Teachers College Contributions to Education, No. 812. New York: Teachers College, Columbia University, 1940. Pp. viii+162.
Reports the results of analyses of curriculums and practices in twenty-five elementary schools and of procedures and policies in seventeen teachers' colleges, which were made to determine material facilities needed in the training of intermediate-grade teachers of science.
721. CURRICULUM COMMITTEE OF THE SCHOOL OF EDUCATION, SYRACUSE UNIVERSITY. *A Functional Program of Teacher Education*. Published on Recommendation of the Commission on Teacher Education. Washington: American Council on Education, 1941. Pp. x+260.
"Presents the philosophy, content, and methods of teacher training in use at Syracuse University and the unique organization designed to facilitate them."

722. DAVIS, FREDERICK B. "The Measurement of Professional Information among Candidates for Teaching Positions," *Educational Administration and Supervision*, XXVII (February, 1941), 99-106.
- Describes briefly the purpose and the scope of the examination sponsored by the National Committee on Teacher Examinations and presents the distribution of scores for candidates taking the test in March, 1940.
723. DAY, EDMUND E. "Educational Objectives and Teacher Education," *Educational Record*, XXII (January, 1941), 48-55.
- Discusses the advances in teacher education which "can be achieved only through greater clarification and fundamental reorganization of the expressed purposes of education."
724. *Digest of Proceedings and Addresses, Michigan Conference on Teacher Education, Mount Pleasant, Michigan, August 18 to 24, 1940.* Bulletin No. 2. Lansing, Michigan: Michigan Cooperative Teacher Education Study, 1940. Pp. 44.
- Summarizes significant contentions of the Michigan Conference on Teacher Education, which was held as part of a three-year program of the state to improve the preparation of teachers.
725. DUGAN, WILLIS E., and WRENN, C. GILBERT. "An Evaluation of a Guidance Induction Program in Teacher-training," *Educational Administration and Supervision*, XXVII (January, 1941), 53-61.
- Describes the methods used in an "individual type of orientation to the aims, services, and skills involved in a high-school guidance program" and the techniques employed in evaluating the effectiveness of these methods.
726. ELIASSEN, R. H., and ANDERSON, EARL W. "Investigations of Teacher Supply and Demand Reported in 1939," *Educational Research Bulletin*, XIX (September 25, 1940), 374-78.
- Summarizes significant findings of a series of recent studies relating to teacher supply and demand.
727. ELIASSEN, R. H., and MARTIN, ROBERT L. "Pretraining Selection of Teachers during 1937-1939," *Educational Administration and Supervision*, XXVI (October, 1940), 481-92.
- Describes the chief contributions of forty-two articles and reports and summarizes findings under such headings as factors relating to teaching success, trends, and recommendations for further study.
728. ENGLEMAN, F. E., and MATTHEWS, J. C. *Progress Report on Seven Teachers Colleges Participating in the Cooperative Study of Teacher Education.* Prepared for the American Association of Teachers Colleges and the Commission on Teacher Education. Washington: Commission on Teacher Education, American Council on Education, 1941. Pp. 44.

Summarizes the findings of a committee, consisting of a president and a professor from state teachers' colleges outside the co-operative study, who visited each of the seven co-operating institutions for three days each.

729. EVENDEN, E. S. "A Co-operative Program in the Preservice Education of Teachers," *Teacher-Education Journal*, II (September, 1940), 77-84.

Reviews significant educational movements and changes that are important background elements in the present co-operative program in the pre-service education of teachers in Barnard College; Columbia College; and Teachers College, Columbia University.

730. FRAZIER, BENJAMIN W. "Minimum Certification Requirements for Teachers," *School Life*, XXVI (October, 1940), 27-29.

Outlines certain minimum state teacher-certification requirements for beginning elementary-school, junior high school, and high-school teachers of academic subjects.

731. FRAZIER, BENJAMIN W. "Teacher Preparation," *School Life*, XXVI (June, 1941), 259-62.

Discusses problems involved in the co-ordination and supervision of 1,196 higher institutions which in 1939 were approved for teacher education.

732. GREGG, RUSSELL T. "Professional Graduate Education for Secondary-School Teachers," *School and Society*, LIII (June 14, 1941), 745-50.

Questions the adequacy of typical graduate courses in education for experienced teachers and considers the characteristics of the workshop approach in meeting their needs.

733. HIGBIE, E. C. "A Professional Curriculum in Teacher-Education," *School and Society*, LII (October 5, 1940), 300-302.

Advocates a three-year program for all teachers based on the completion of a junior-college program.

734. HILL, GEORGE E. "Integration of Professional Courses in a Five-Year Program," *Journal of Educational Research*, XXXIV (May, 1941), 658-64.

Discusses the plan for the professional education of teachers at the University of Pennsylvania, with special emphasis on the importance of integration.

735. HOEKJE, JOHN C. "A Freshman Orientation Program," *Educational News Bulletin*, XI (December, 1940), 27-31. (Kalamazoo, Michigan: Western State Teachers College.)

Describes the policies, procedures, and methods employed in the orientation of students at Western State Teachers College, Kalamazoo, Michigan.

736. HOLLIS, ERNEST V. "Problems in the Preparation of College and University Teachers," *Bulletin of the American Association of University Professors*, XXVII (April, 1941), 206-12.

Outlines the steps taken by the Commission on Teacher Education in studying the preparation of college and university teachers and describes training procedures employed in different institutions.

737. HOUSTON, V. M. "An Analysis of the Methodology and Content of Guidance Courses in Teachers Colleges," *Educational Administration and Supervision*, XXVII (February, 1941), 145-51.
Summarizes information received from 148 institutions on the accredited list of the American Association of Teachers Colleges.
738. IRWIN, FORREST A. "Graduate Education in Institutions of Teacher Education," *Educational Administration and Supervision*, XXVI (December, 1940), 658-66.
Discusses the nature of graduate work, admission requirements, and programs for different types of students in institutions that prepare teachers.
739. *The Laboratory School of the Indiana State Teachers College (Out-of-School Activities)*. Teachers College Journal, Vol. XII, No. 4. Terre Haute, Indiana: Indiana State Teachers College, 1941. Pp. 73-90.
Describes various out-of-school activities carried on by the Laboratory School of the Indiana State Teachers College.
740. LAFFERTY, H. M. "Teacher Education Moves Forward," *Educational Administration and Supervision*, XXVI (November, 1940), 585-94.
Points out the agencies that have attacked most vigorously the problems of teacher education during recent years and compares in detail past and present policies of teacher-education institutions as a frame of reference for additional constructive work.
741. LAFFERTY, H. M. "The Professional Education of Teachers," *Educational Administration and Supervision*, XXVII (March, 1941), 195-207.
Discusses critically two current conceptions concerning the nature and the scope of professional education.
742. MERRILL, A. W. "How Can the College and the School Co-operate in Educating Teachers?" *Educational Record*, XXI (July, 1940), 359-68.
Discusses basic considerations underlying the co-operation and the co-ordination of various educational agencies in the training of teachers.
743. MITCHELL, MORRIS R. "Teacher Education through Useful Work," *Educational Method*, XX (October, 1940), 15-22.
Emphasizes the value of a well-unified community program that furthers a specific plan as part of a teacher-education curriculum.
744. MORGAN, DEWITT S., WORKS, GEORGE A., EMENS, JOHN R., SIFERT, E. R., and PATTERSON, ALLEN DEWITT. "The Preparation of Secondary School Teachers," *North Central Association Quarterly*, XV (January, 1941), 239-52.

A series of papers emphasizing (1) "The Relation of the High School to the Problem," (2) "The Problem in Colleges of Liberal Arts," (3) "Teacher Selection Techniques and State Certification Procedures," (4) "Co-operative Teacher Training," and (5) "Implications of Newer School Practices."

745. NORTHWAY, RUTH M. "Teacher Education—A Co-operative Enterprise," *Educational Administration and Supervision*, XXVII (March, 1941), 221-25.

Emphasizes the fact that teacher education is a continuous process and a co-operative project which is shared by at least five agencies—the state, the teachers' college, the local community, the specific school system, and the individual teacher.

746. PERSONNEL COMMITTEE. *Student Personnel Work*. Western Illinois State Teachers College Quarterly, Vol. XX, No. 3. Macomb, Illinois: Western Illinois State Teachers College, 1940. Pp. 54.

Describes the program of precollege guidance, orientation, counseling, health service, and mental-hygiene services at Western Illinois State Teachers College.

747. REISNER, EDWARD H. "The Integrated Course in the Foundations of Education at Teachers College, Columbia University," *Journal of Educational Research*, XXXIV (May, 1941), 650-57.

Describes a core curriculum for the professional education of teachers at the graduate level.

748. ROBINSON, ELMO A. "The Seven State Colleges of California," *School and Society*, LIII (May 24, 1941), 649-57.

Discusses the various functions of seven institutions of California which were formerly called teachers' colleges; also considers possible changes in the future of some of these institutions.

749. ROBINSON, WILLIAM MCKINLEY. "Professional Education of Rural Teachers," *Educational News Bulletin*, XI (June, 1941), 99-106. (Kalamazoo, Michigan; Western State Teachers College.)

Discusses the preprofessional and the professional education of rural teachers and the basis of differentiation.

750. ROWLAND, ALBERT LINDSAY. "A Teachers College Should Be a Teachers College," *Peabody Journal of Education*, XVIII (May, 1941), 328-33.

Presents arguments against the tendency "to make all our teachers' colleges institutions for general education with the vocational function no longer the single purpose of these institutions."

751. SCOTT, CECIL W. "Teacher Selection and Placement," *Review of Educational Research*, X (June, 1940), 199-203, 277.

Summarizes the results of scientific studies published during 1937, 1938, and 1939, concerning issues such as teacher supply and demand; recruitment for

training and prediction of teaching success, preparation of teachers, teacher selection and placement, and teaching combinations in high school.

752. SEIBERT, RUSSELL H. "General Courses for Freshmen," *Educational News Bulletin*, XI (December, 1940), 32-37. (Kalamazoo, Michigan: Western State Teachers College.)

Discusses the urgent need for curricular reorganization at the Freshman level and outlines briefly six new courses which are being developed experimentally at Western State Teachers College, Kalamazoo, Michigan.

753. SHAFER, HUGH M., and HAGEN, WALDEMAR. "Personnel Laboratory Provides Personnel Work Practice for Student-Teachers at Minnesota," *Educational Administration and Supervision*, XXVI (December, 1940), 691-96.

A progress report on the establishment and the first year of operation of a Personnel Practice Laboratory for Student Teachers at University High School, University of Minnesota.

754. SPRAGUE, H. A. *A Decade of Progress in the Preparation of Secondary School Teachers*. Teachers College Contributions to Education, No. 794. New York: Teachers College, Columbia University, 1940. Pp. viii+170. Presents the results of a comparative study of practices and trends in curriculums for secondary-school teachers in fifty-five teachers' colleges for the period 1928-38.

755. SPRAGUE, H. A. "Critique of Five-Year Plans for Preparation of Teachers of Secondary Schools," *Teacher-Education Journal*, II (September, 1940), 85-87.

Analyzes critically (1) New York State's five-year plan for the preparation of secondary-school teachers and (2) the program of pre-service education of teachers at Barnard College; Columbia College; and Teachers College, Columbia University.

756. SUTTON, RACHEL S. *The Education of Teachers for the Elementary Schools of Georgia*. Athens, Georgia: University of Georgia Press, 1941. Pp. xii+278.

Presents an analysis of the socio-economic status of Georgia, defines the unique function of the elementary schools of the state in the light of that analysis, and outlines an experimental program in the education of elementary-school teachers in Georgia.

757. "Third Annual Institute on Professional Relations," *Peabody Journal of Education*, XVIII (September, 1940), 71-104.

Presents papers by C. A. Ives and Edgar C. Higbie and various discussions by panel groups on "Education as a Profession," "Selection of Candidates for Teacher Preparation," "Responsibility of Various Agencies for Making the Profession More Professional," and "Types of Discrimination against Teachers."

758. *Twenty-first Annual Session of the National Association of Supervisors of Student Teaching, Atlantic City, New Jersey, February 23 and 24, 1941.* Normal, Illinois: J. W. Carrington, Secretary-Treasurer (% Illinois State Normal University), 1941. Pp. 124.

Includes the proceedings of the 1941 meeting of the association which was devoted largely to discussions of "Internships in Teaching" and "The Expanding Concept of the Laboratory in Teacher Education."

759. WEBB, L. W. "Professional Education for Experienced Teachers," *Educational Trends*, IX (January-February, 1941), 18-24.

Emphasizes the importance of workshops in the professional education of in-service teachers.

760. WHITNEY, ALLEN S. "The First Chair of Education in an American University," *School and Society*, LIII (March 1, 1941), 257-61.

Traces developments in the University of Iowa and in the University of Michigan to determine which institution established the first chair in this country for the professional training of secondary-school teachers.

761. WILLING, MATTHEW H. "The Program in Education at the University of Wisconsin," *Journal of Educational Research*, XXXIV (May, 1941), 641-49.

Describes an attempt to improve offerings for the professional education of teachers.

762. WILSON, GEORGE D. "Should College Teachers Be Professionally Trained?" *Journal of Higher Education*, XII (June, 1941), 296-300.

Considers areas of training essential in the preparation of prospective college teachers.

Educational Writings



REVIEWS AND BOOK NOTES

MOTION PICTURES IN THE CURRICULUM.—Data from numerous carefully controlled investigations during the past two decades have established the potential values of the motion picture as a teaching tool. Practical experience has shown, however, that disappointing results often follow when the film is thrust upon teachers untrained in the use of this medium. Particularly timely, therefore, is the recently published series of "Motion Pictures in Education" of the American Council on Education.¹ Four of these publications report experimental use of motion pictures and treat three large aspects of film utilization: (1) contributions of films and methods of using films at various grade levels in representative types of curriculums, (2) values and methodology of motion-picture production by pupils, and (3) some technical and mechanical considerations involved in school use of films. An additional brochure shows how twenty selected films may help pupils to understand the events leading up to the present war and the fall of France. Only the studies having the broadest implications for elementary-school practice will be reviewed here.

The Tower Hill report, *A School Uses Motion Pictures*, describes the outcomes of the use of films by a private school whose pupils are drawn mainly from a relatively high economic stratum. The members of the Tower Hill faculty who participated in the experiment felt that films contributed markedly to the main objectives of the school: critical thinking, co-operation, appreciation, health, and skills. Film evaluation by both pupils and teachers occupied a prominent place in the study. For example, critical analyses of film presentations played an important part in attaining the "thinking" objective for the pupils, and the teacher evaluations assisted in relating specific lessons to broad school objectives.

¹ Motion Pictures in Education: No. 3, *A School Uses Motion Pictures* by the Staff of Tower Hill School, Wilmington, Delaware, pp. viii+118, \$1.00; No. 4, *Films on War and American Policy* by Blake Cochran, pp. viii+64, \$0.50; No. 5, *Projecting Motion Pictures in the Classroom* by Francis W. Noel, pp. viii+54, \$0.50; No. 6, *Motion Pictures in a Modern Curriculum: A Report on the Use of Films in the Santa Barbara Schools* by Reginald Bell, Leo F. Cain, Lillian A. Lamoreaux, and Others, pp. x+180, \$1.00; No. 7, *Students Make Motion Pictures: A Report on Film Production in the Denver Schools* by Floyd E. Brooker and Eugene H. Herrington, pp. viii+142, \$1.00. American Council on Education Studies, Series II, Vols. IV and V. Washington: American Council on Education, 1940, 1941.

The Santa Barbara report, *Motion Pictures in a Modern Curriculum*, places film use in quite a different context. In this case motion pictures were used by a school in which a core curriculum was being developed to suit the needs of a pupil personnel including many and diverse races, classes, abilities, and interests. That the faculties of the Santa Barbara schools were convinced of the high value of motion pictures in meeting their unique curricular needs is apparent in every chapter of the report. A primary-grade teacher states that a particularly unresponsive group "came to life" when motivated by motion pictures. A fifth-grade class in which three-fourths of the pupils had reading difficulties used motion pictures to furnish a common experiential background. The poor readers gained in understandings, participated more actively in class undertakings, and were stimulated to improve their reading. Films helped a mixed elementary-school group to gain a better understanding of foreign countries and peoples. Even mediocre films made sixth-grade children want to "do something" about safety and helped to improve and maintain their interest in school work generally. Throughout the report emphasis is given the many and varied activities that grew out of the use of films.

The Santa Barbara and Tower Hill reports are particularly useful to teachers because they deal with film utilization in classroom situations which are made vivid to the reader by generous use of stenographic records of class procedures, specimens of pupil work, and anecdotal records. From such material the reader may arrive at his own generalizations regarding the kinds of things that can be accomplished through films and, at the same time, gain in understanding of promising techniques for using films. From the standpoint of pure research, the studies may be criticized for ascribing certain outcomes to films where direct causal relationships have not been proved to exist. However, at the present stage in the development of the motion picture as an educational medium, descriptions of successful film lessons may be considered as helpful as are highly analytical experimental studies.

The many technical, mechanical, and architectural considerations that arise when a school undertakes the use of films in the classroom are dealt with in *Projecting Motion Pictures in the Classroom*, a separate report on Santa Barbara's experience with motion pictures. Simple, nontechnical, and thoroughly practical are the answers given to such questions as how rooms can best be darkened, what points should be considered in selecting a sixteen-millimeter projector and its related equipment, who should operate the machine, and so on. One problem not adequately treated is the selection, procurement, and circulation of films.

The series of studies of "Motion Pictures in Education" meets a most urgent need in the classroom utilization of films. Perhaps no other collection of materials in the area furnishes so many innovative ideas in film-teaching technique or gives answers so simply and concisely to the questions that arise in evaluation, projection, and production of motion pictures. Emphasis is repeatedly given the

importance of critical evaluations of films in terms of their curricular implications. This concept alone, if grasped fully by teachers, should effect tremendous improvement in the use of films. Each of these studies is worth reading and re-reading in its entirety.

ABRAM W. VANDER MEER

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SOCIALIZATION OF THE INDIVIDUAL THROUGH LEARNING.—Those who write about educational psychology must orient themselves sooner or later to a trinity of notions. This trinity is expressed in the phrase: "*Youth must learn the ways and values of the social order.*" Some textbooks, grounded in the details of experimental psychology, speak only of the mental qualities of youth. Experimental psychology has devoted much of its study to such abstract concepts as perceiving, acting, learning, remembering, thinking, willing, emotion, and the self. Other textbooks, following a more empirical tradition, have leaned heavily on learning, with its natural twin of original nature. The learning may be of school subjects, or the facts may simply concern learning per se irrespective of the *whats* to be learned. The result is that, on the whole, most books on educational psychology make a central point of reference out of the psychological properties of the pupil. These books stand, therefore, in contrast to educational sociology and to much that is now implied by the social sciences and by cultural contexts. Even though they may emphasize growth, the notion of growth with respect to a succession of developmental tasks in a society is a marginal rather than a central fact.

Hartmann¹ has evaded these forms of one-sidedness. He has written of all three members of the educational trinity. He has not looked from the individual with his psychological qualities to the school and to society. Neither has he looked from the school and from society to the growing and learning individual. On the contrary, his net covers the whole situation of student-subject-matter-teacher-social context. He has, in short, cut across the whole field as a Gestalt or topological psychology would require. The learner is viewed as a member of his social and cultural context so that specific learning situations, the social purposes of education, and the adaptive resources of the learner belong, as they should, to a membered whole. Part I of the book outlines "the special 'system' of thought and action which the rest of the volume seeks to document in greater detail" (p. 4). The needs of the pupil (chapter i) are brought into dynamic relation with the motives and value attitudes of the teacher (chapter ii). This comparison leads directly to a further picture of the growing person, drawn with the broadest of strokes (chapters iii and iv). The final chapter of Part I summarizes the systematic position of the book through the medium of typical researches rather than of exhaustive definitions.

¹ George W. Hartmann, *Educational Psychology*. New York: American Book Co., 1941. Pp. xvi+552. \$2.75.

The theme of Part II is found in the question: "How can the human personality be changed for the better?" (P. 141.) At first sight one might read behind the novel chapter headings, the older traditions of intelligence (chapter vi), motivation (chapter vii), emotion (chapter viii), reasoning (chapter ix), efficiency in learning (chapter x), creativity (chapter xi), personality (chapter xii), and social behavior (chapter xiii). First sight, however, would be an illusion. There is nothing formal or traditional about the treatment of any of these topics. The author has not only described the topological point of view, but he has acted upon it in his own presentation. Intelligence, for example, being a normative concept, is placed within the concrete school and social contexts which hinder or promote its value for adjustive action. With a minimal amount of appeal to formal experimental data but with a clear conscience regarding them, Hartmann tries to justify the statement that "human intelligence is a product of certain conditions—some of these can be regulated by the school-room, some by the home, some by the political and economic structure of the nation and community, and some by the individual himself after he reaches an appropriate stage of maturity" (p. 194).

The refrains of "social setting" and of "excellence in adjustment to life-situations" run through all the chapters of Part II. Where the author fails to cite the direct experimental evidence, he draws on his common sense. He displays, however, an educated common sense, for he is intolerant of the traditions which have obscured the educable dimensions of such concepts as purpose, emotional behavior, and reasoning. He writes of these topics as he would have the teacher behave about them in the classroom. Teaching methods are not confined to the meticulous items of research but to the improvement of the child's functional resources for adjusting himself to school life so that he may, later on, adjust himself to social and cultural life. Adjustments through learning and reasoning, for example, cannot be viewed apart from a basic motivation toward happiness. Obviously, if these facets of human nature are continually viewed in their relation to the concrete situations in which learning and growing occur, they will lead, through an expansion and alteration of interests, to effective personality and improved social behavior.

Part III treats of the adaptation of instruction to developmental levels. This part is not intended, however, as a psychology of the school subjects. The illustrations drawn from reading, arithmetic, writing, social science, natural science, and all the rest do not constitute the materials of a teacher-training program at any level. On the contrary, they are used to illustrate the pervading theme of the book as a whole, namely, its regard for each of the elements in the triune field called educational psychology. The material of each of these chapters, therefore, could have been incorporated at the appropriate places in Part II. Since, however, each of them reviews briefly the kinds of developmental achievements to be expected according to age level, they naturally lead to the final chapter, which deals with certain aspects of adult citizenship.

Hartmann has written a good book. Even though it is not a textbook of educational psychology, he writes *about* the field in an easy and stimulating way. He has a likable flair for concrete instances of practice and method. The teacher who can read between the lines will find the book full of suggestions. If it is to be called a "first" book, the word "first" ought to mean that, after having read the book and secured broad frames of reference, the student would then be prepared to tackle the more detailed data of educational psychology without getting lost among them. For the student who has already "had a course" in educational psychology, the present book offers a splendid exercise in organization. Whether he adheres to topological psychology or not, he will have acquired knowledge about the topography of educational psychology.

COLEMAN R. GRIFFITH

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IN SUPPORT OF SPECIAL CLASSES FOR THE GIFTED.—The public schools of Cleveland since 1921 have been developing a program of special classes for children with intelligence quotients of 120 or over. These classes labor under the designation of "Major Work" classes; have as their objective an enriched curriculum rather than mere acceleration of the rate at which the pupils pass through school; and are committed to building up in the gifted, to a degree commensurate with the latter's powers, desirable social attitudes, good habits, adequate understandings, good health, skill in self-expression, ability to do effective critical thinking, interest and facility in a wide range of worth-while activities, and a substantial mastery of the culturally basic skills and knowledge. The volume being reviewed¹ is a report of a systematic effort to determine the degree of success of the "Major Work" program—an effort unique among other such attempts described in the literature in that considerations other than those of academic achievement are put upon the balances.

Sixty-five superior individuals, former pupils in the Cleveland schools who were without the special-class experience, are compared with two groups of sixty-five each who had such experience. The members of one of these latter groups attended "Major Work" classes one to three years, while those of the other attended four to twelve years. The author attempted rather detailed individual matching of control and experimental subjects with respect to sex, age, intelligence quotient, place of birth, and nationality or race. Since the 130 members of the experimental groups were drawn from a population of 263 former "Major Work" pupils who answered the questionnaire on which the study is based, matching was fairly successful.

The data of the investigation are the responses made to a lengthy questionnaire by individuals who, when enrolled in the Cleveland schools, had intelli-

¹ Merle R. Sumption, *Three Hundred Gifted Children: A Follow-up Study of the Results of Special Education of Superior Children*. Yonkers-on-Hudson, New York: World Book Co., 1941. Pp. xviii+236.

gence quotients of over 120 and who were, at the time of the study, eighteen to thirty years old. Only 351 answered the questionnaire, a number somewhat less than a fourth of the total population eligible for investigation. Precisely what selective factors may have operated to yield the three matched groups whose responses are reported, it is hard to say; but it seems likely that essentially the same factors would have been at work to select both the control and the experimental subjects. The reviewer, however, quite unfamiliar with the Cleveland situation, could easily overlook some important selective influences. The members of the "Major Work" population, for example, because of a better knowledge of the schools' expectations for them, may have been relatively unwilling to cooperate in the study unless they believed that they had achieved in accordance with the expectations.

The questionnaire used in the inquiry had, of course, most of the usual weaknesses of instruments of this sort. However, the limitations of the questionnaire technique should color similarly, at least in most respects, the data from control and experimental subjects. It occurs to the reviewer, though, that some of the differences between the findings for control and experimental groups may be attributable, as was previously mentioned, to a greater familiarity on the part of the pupils of the "Major Work" classes with what was expected of them as adults and a consequent adjustment of reports in the direction of these expectations. Although probable errors are not given, the statistical summaries are thought to justify the following conclusions. When compared with the gifted individuals who attended the regular classes of the Cleveland public schools, those who had the special-class experience tended to excel in leadership, in altruistic behavior and interest, in the receipt of honorary awards, in frequency of attendance at college, in indulgence in self-expressive and creative activities, in critical thinking, in range of participation in worth-while leisure-time activities, and in amount of nonfictional reading done. The human relationships of the experimental subjects seemed to be quite as praiseworthy, their command of the tool subjects quite as adequate, and their knowledge of basic cultural materials quite as broad as were those of the control subjects—contrary to what one might expect who listened to the arguments of the opponents of homogeneous grouping.

The 263 individuals who attended the special classes and who responded to the questionnaire expressed much appreciation of the chance that they had been given to work at their own tempo, of the experiences that their socialized classes had afforded, of the guidance in reading provided, of the opportunity and the encouragement to do creative work, of the breadth of interest stimulated, and of the discipline in independent thinking acquired. A fair number of boys, however, believed that such enrichment of the curriculum as was represented by courses in French was of no great value to them. When asked for proposals for improving the "Major Work" program, many suggested the desirability of procuring teachers better trained for the task of instructing the gifted, of eliminat-

ing the isolation from the general school population which membership in the special classes entailed, of tempering any undue conceit which might result from the distinction of being selected for membership in the special classes, and of providing more adequate vocational guidance, as well as more realistic experiences in shouldering responsibility for the welfare of others.

Sumption believes that this evidence justifies overwhelmingly the "Major Work" program and recommends that more, as well as more prolonged, contact with it be provided the gifted. The author also accepts the suggestions offered by the respondents to the questionnaire with regard to areas in which the program could profitably be altered or supplemented.

HELEN L. KOCH

University of Chicago

ART EDUCATION IN ELEMENTARY SCHOOLS.—Since the revision of the curriculum for elementary schools of Ontario, Canada, in 1937, there have been many requests from teachers for information regarding the newer types of work to be presented. Especially has this been true in the field of art—a subject which has been given sharply increased emphasis. To meet this demand, Joicey M. Horne has prepared a book¹ which presents a collection of technical information and suggested activities for elementary schools, both urban and rural.

The nucleus of the material outlined in the book was collected by the teachers in training at the Toronto Normal School for their own benefit. The author has carefully organized the various contributions and greatly expanded the general scope of the work until a veritable encyclopedia of art activities has been compiled. Hence the book contains valuable suggestions for all teachers of art and for all persons interested in the advancement of the subject in the schools.

The book is divided into three parts: "General Information for the Teacher," "A Variety of Activities," and "Activities for Special Days."

The author clearly points out the purpose of the publication in the Introduction:

For teachers in general, and overburdened rural teachers in particular, this book seeks to provide such materials inexpensively and compactly. The suggestions and directions are simple and practical. Their purpose is not only to encourage, but to enable, the most hesitant teacher to make a start in a strange field with a minimum of wasted time and effort. . . .

While a discussion of methods of teaching art is not attempted, it is hoped that the suggestions will indicate that school art is something far more varied and interesting than the drawing of ellipses and strawberry boxes [p. iii].

The author's assertion that art is more varied than the drawing of simple forms is borne out by the great number of art activities treated in the text.

¹ Joicey M. Horne, *The Art Class in Action: A Collection of Technical Information and Suggested Activities for Schools*. Toronto: Longmans, Green & Co., 1941. Pp. 136. \$2.00.

These may be summarized as follows: pictorial composition and design; color; perspective; figure-drawing; lettering; posters; murals; stained-glass windows; cartoons; homemade movies; finger painting; blueprinting; spatter work; stencils; stick prints; potato cuts; linoleum cuts; woodcuts and engravings; dry points; bookplates; silk-screen process; bookcraft; textile work; weaving; sewn pictures; batik; paper and toy construction; modeling; carving; papier mâché; puppets and puppet stages; costumes for children's plays; stage sets; framing, mounting, and hanging of pictures; odds and ends; and activities for special days, including Thanksgiving, Hallowe'en, Remembrance (Armistice) Day, Christmas, St. Valentine's Day, St. Patrick's Day, Easter, Arbor Day, Empire and Dominion days.

The book is illustrated with three hundred pen-drawn diagrams and sketches. Its informational material is simply and clearly stated. The result is a well-prepared manual for teachers which should do much to establish a sound background of art education in Canadian schools.

WILLIAM G. WHITFORD

University of Chicago

PSYCHOLOGICAL TESTS AND TESTING PROCEDURES.—During the past twenty-five years hundreds of instruments have been developed for measuring human abilities, traits, interests, and attitudes. Green's book¹ is written as a textbook to present "a more comprehensive treatment of behavioral measurement techniques and procedures than is available in any single volume hitherto published" (p. viii). It is intended to serve the needs of three groups: those doing research work; those dealing with practical problems in industry and schools; students who are preparing for "medicine, journalism, education, industrial relations, social work, or applied psychology" (p. viii).

The book is divided into three parts. Part I deals with basic considerations in measurement; Part II with typical measuring instruments and their uses; and Part III with "Persistent Problems," such as the effect of practice on test scores, measurement of growth and senescence, and absolute scaling.

In Part I the author attempts to give students an understanding of the basic principles underlying the measurement of human behavior. After defining the terms "measurement" and "behavior," the author proceeds to a general discussion of how scales and tests are developed as measuring instruments, of how they are applied to the study of behavior, and of the various types of appraisals which may be made. In this section on "Basic Considerations" is also included sufficient statistical material to enable the student to employ the elementary procedures which might be encountered in the use and the interpretation of psychological-test results. The normal frequency distribution, ranks, percentiles, quartiles, deciles, measures of central tendency, dispersion, methods of

¹ Edward B. Green, *Measurements of Human Behavior*. New York: Odyssey Press, 1941. Pp. xxii+778. \$3.50.

weighting, measures of relationship, errors in applying correlation coefficients, the concepts of validity and reliability, and methods of constructing and evaluating test items are explained.

One distinctive feature of the book is the discussion of the methods and the results of factorial analyses. No attempt is made to cover the mathematics of factorial solutions, but the treatment "covers the logic, which is very important in analytical thinking, and the results, which are significant in test construction and interpretation" (p. ix).

In Part II, "Instruments and Results," the author covers all the important types of tests, scales, and inventories in this country. No attempt has been made to list every test. Beginning with tests to be applied in early childhood, his survey covers measures of achievement, Binet-type scales, group intelligence tests, performance tests, and mechanical and motor tests. In each case a brief history of the origin and the revisions of the test is given, its usefulness is discussed, its items are presented, and its validity is analyzed. Also listed are the instruments for measuring ability in the fine arts: design, literature, and music. The need for further research in the appraisals of attitudes and in interest scales is indicated, and the limitations as well as the practical results are evaluated.

Part III, "Persistent Problems," covers the dangers with which the would-be scientific examiner is beset. The significance of practice and forgetting and of growth and senescence, and the problem of the evaluation of judgments are stressed. Finally, measurements of native differences due to selective breeding and environment and special training are brought to the attention of the student in an unbiased, scientific manner.

Measurements of Human Behavior is a book which should cover a long-felt need. The author has achieved a prodigious feat in combining in one textbook the wealth of material which has been previously largely scattered in psychological and personnel journals. There are appended an excellent bibliography, a glossary, and a subject index, which make the book invaluable for reference purposes both for scientific research workers and for persons engaged in practical guidance and personnel work.

As a textbook for a course in mental measurements or psychological tests, the book will probably prove to be too comprehensive. It is, in reality, two textbooks condensed into one. Students in the second, third, or fourth year in college cannot be expected to secure in one course (1) a comprehensive and thorough grasp of basic considerations underlying psychological measurements, including statistical methods and techniques; (2) a knowledge of the different types of instruments used in intelligence, educational, and vocational testing; (3) a familiarity with the interpretation of test results; and (4) an understanding of the persistent problems arising from the use of psychological tests. These should, and often do, constitute at least two separate courses, and in the reviewer's mind this procedure is better. A thorough course in statistics, as applied to psychology and education, should precede a study of the instruments

themselves. It has been the reviewer's experience that, when the two are combined into one course, the students usually secure only a superficial knowledge of each. From the point of view of teaching technique, it seems best to have two textbooks covering these fields.

ANDREW W. BROWN

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GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

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Educational News and Editorial Comment

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IMPROVING THE CURRICULUM

UNTIL about a decade and a half ago efforts to improve the curriculum were, for the most part, centralized in influential committees, often organized on a national basis, or were carried on by experts in the various subject fields, whose work resulted most commonly in the form of textbooks of one kind or another. For a number of reasons, this centralization of curriculum-making gave way to a strikingly different practice, namely, that of remaking the curriculum through the work of local curriculum committees. This movement to improve the work of the schools through local curriculum committees spread with great rapidity, and by the year 1930 it was a conservative system indeed that did not have one or more committees attempting to improve the course of study. The results of this local activity have been both bad and good. Some of the curriculum committees had no special competence in their field, and their product compared poorly with that of committees chosen on a wider basis or with that of experts whose product was the result of years of careful study and experimentation. In some sections of the country the results of local action have produced almost chaotic conditions as far as any coherent curriculum is concerned. On the

other hand, the work of these local committees has often challenged traditional practices, and, through the very urge to do something new and particularly to break down formality, the curriculum has often been enriched and certainly has been made more functional.

The weakness of many of these curriculum revisions has consisted in a lack of coherence and sequence from grade to grade. Sponsored by groups who placed great emphasis on child development and growth, these revision programs have shown a notable gap between their theoretical emphasis on genetic development and their product of curriculum materials which failed to reflect the needs of growth in the sequential organization of content. Many excellent units, projects, and activities were organized, but these existed as dotted islands in a sea of less consequential miscellaneous materials. This unrelatedness of curriculum units was not entirely accidental. In fact some of the more enthusiastic proponents of a new curriculum have decried all attempts at organization and sequence on the ground that these smack of the older curriculums and, therefore, of formality. Now, after fifteen years of experience and a considerable amount of sober thinking, some of the better school systems are attacking the problem of consolidating the gains of local experimentation and are attempting to remake a coherent curriculum on something other than the old subject-matter classifications. Several commendable examples of these efforts have come to the editor's desk during recent weeks.

Continuity as the basis of From Fort Smith, Arkansas, comes a
Fort Smith's curriculum two-hundred-page report entitled *A Plan*
for Growth in the Elementary School. This
report represents the efforts of many members of the teaching staff under the leadership of Mr. Witt Blair, the curriculum director. Three needs guided the work of the curriculum committees: "(1) the desire among the various groups for some type of continuity from grade to grade, (2) the desire for a large area of content specified for each level, (3) a plan for closer co-operation between those teachers who work with the same group of children in one grade." The committee wished to formulate a curriculum organized on some

other basis than the customary subject-matter divisions. They took for their pattern the objectives stated by the Educational Policies Commission of the National Education Association and the American Association of School Administrators in its report on *The Purposes of Education in American Democracy*. Using four major divisions, namely, the objectives of self-realization, of human relationship, of economic efficiency, and of civic responsibility, the committee formulated a curriculum for each of the six elementary-school grade levels. While subject-matter boundaries were cut across to a considerable extent, there is, nevertheless, no vagueness in the activities recommended nor is there any dodging of the demands of sequence in a program which must extend through the entire elementary-school period. The program is commendable in that it recognizes the necessity of sequence and organization without returning to the formal subject-matter divisions which characterize the traditional curriculum.

Needs of young children studied in Minneapolis From Minneapolis comes another curriculum publication dealing with *The Early Elementary School*. This report again is the work of a production committee, which acknowledges the leadership of Miss Prudence Cutright, assistant superintendent of schools in Minneapolis. The publication is, in no sense, a course of study. It is dominated by the concept of growth, and its purpose, as expressed by the committee, is "to help focus the attention of all school persons upon the child and the characteristics of his nature, in the hope that he may be given the opportunity to develop physically, mentally, emotionally, and socially at his own rate and in a manner best suited to his individual needs." The report deals with the needs of young children, the kinds of records most useful in studying child growth, the organization and administration of the school to promote child growth, home-school and environmental relationships which are conducive to development, and with the appraisal of the elementary-school program. The bulletin contains a wealth of concrete materials relating to children's experiences and is well worth the study of supervisors and teachers of the early elementary-school grades.

Green Bay's curriculum revision in social studies In Green Bay, Wisconsin, a group of ninety-two teachers, fourteen principals, and four supervisors of the elementary schools under the leadership of Alice Brady, director of elementary schools, and Ethel Speerschneider, chairman of the central committee, has spent three years in co-operative efforts to rebuild and improve the social-studies curriculum. The results of their work are now presented in six mimeographed volumes, one for each of the grades. Here again is evidence that curriculum experimentation is maturing to the point where interest no longer centers on isolated units to be used in the various grades and where the schools have recognized the necessity of a sequential program which avoids duplication from grade to grade and which recognizes the developing maturity of the child. The fact that this curriculum has appeared in mimeographed rather than printed form can be taken as evidence that the schools of Green Bay are still experimenting and that the present six volumes represent only a milestone in their efforts to make the social-studies program function in the experience of the children.

Use of regional material in social-science classes A useful pamphlet for curriculum committees has been prepared by H. C. Brearley and is made available for distribution by the Commission on Resources and Education and the Commission on Curricular Problems and Research of the Southern Association of Colleges and Secondary Schools, as Field Study Number 8 of the Division of Surveys and Field Studies of the George Peabody College for Teachers. This pamphlet, which deals with *Southern Regional Materials in Social Science*, contains four kinds of material. The first is a section of suggestions to teachers for the study of community and regional problems, in which lists of source materials are provided for fourteen topics in social science, such as conservation of natural resources, education, family spending, health, and public welfare and social security. A second section of the pamphlet gives a list of sources from which free and inexpensive materials for classroom use may be obtained. This information will be particularly helpful to teachers in schools where library facilities

are limited. The third section lists supplementary materials, such as audio-visual aids, maps, and charts, while Part IV is a selected bibliography of books and periodicals for libraries. The pamphlet will make possible an inexpensive enrichment of the source materials for the social studies.

Practical material in the field of the language arts Although quite different in nature from the foregoing curriculum materials, the Twentieth Yearbook of the Department of Elementary School Principals is a mine of curriculum suggestions for teachers. Its scope is limited to the language arts in the elementary school. Separate sections deal with oral language, written language, reading, handwriting, and spelling. These are followed by two more general chapters dealing with activities involving a variety of language arts and with general administrative and supervisory practices in the field of language arts. As in most yearbooks, the contributions are somewhat uneven in value, but there are many excellent sections which will help in enriching and vitalizing the school curriculum. The yearbook is pre-eminently a body of practical material. It is written for teachers.

SEVEN NEW PUBLICATIONS FOR SUPERVISORS AND SPECIALISTS IN READING

AMONG the many articles and special studies in the field of reading which have appeared during recent months, seven publications stand out as being unusually significant and are deserving of special mention here.

A bulletin on reading in the intermediate grades The Ninth Research Bulletin of the National Conference on Research in English is devoted to reading in the intermediate grades. This report was prepared by a committee under the chairmanship of Gertrude Whipple, of the Detroit public schools and Wayne University, and is published by Scott, Foresman and Company. The purpose of the bulletin is "to describe a preventive program of intermediate-grade reading and, as far as space permits, to provide concrete suggestions concerning the teaching and the super-

vision of reading." The proposals of the committee are continuously bulwarked by specific references to research findings. If the intermediate grades follow the broad program outlined here, the reading-readiness program of the junior high school level will be greatly facilitated. The committee deserves credit for a thoroughly considered but concisely stated report.

Individualization in the schools of New York City From the New York City schools comes a special bulletin, *Individualization of Instruction in Reading*, prepared by the Division of Instructional Research under the leadership of Miss May Lazar. In the year 1938 the Bureau of Reference, Research and Statistics of the New York City schools organized reading clinics in two elementary schools. Recognizing that it is impossible to transfer the equipment and processes of a clinic into a classroom, the bureau is now expanding the work of the clinic by a program of individualized instruction which has been organized with four experimental classes. The present bulletin is the first of a projected series to present to the teachers of reading the results of the clinical and classroom experiments. The bulletin first develops the background of individualized instruction, follows this by a detailed treatment of individualization as applied to the teaching of reading, and then deals with supervision and the role of guidance in the reading program. The report will be of particular interest to supervisors of reading in city school systems.

A source of practical aids for the teacher of reading A monograph of practical suggestions for teaching reading in the elementary-school grades has just been prepared by Professor Roma Gans under the title *Guiding Children's Reading through Experiences* (Practical Suggestions for Teaching, No. 3, published by Teachers College, Columbia University). After an introductory chapter dealing with the major goals in teaching reading, Professor Gans treats such important problems as guiding reading readiness, increasing depth and accuracy of comprehension, guiding the progress of slow learners, and evaluating progress in reading growth. The monograph is written for teachers and will be a practical help to them.

A report on high-school reading and the library From the State Department of Public Instruction of Nebraska comes an elaborate

Report of the Committee Studying Corrective Reading and Library Service. This publication, which is Bulletin Number 3 in the Nebraska High School Improvement Program, was prepared by numerous individuals, each of whom wrote sections of the material, under the chairmanship of Earle W. Wiltse, superintendent of schools at York, Nebraska. The main purpose of the report is to deal with reading problems and difficulties at the high-school level. The 175 pages of content provide exceptionally usable material. Part I of the report is a brief introduction pointing out the factors and conditions affecting success in high-school reading and the unique elements in reading at that level. Part II is a comprehensive development of a desirable program of reading in high schools, covering both the developmental reading program and the functioning of the school library. Part III, which comprises the largest section of the report, deals with fundamental elements and approaches in the field of high-school reading. It contains a particularly helpful section on mastery of vocabulary. Since high-school teachers are, in general, much less familiar with the techniques of teaching reading than are teachers in the elementary grades, the committee has presented a large amount of concrete aid for high-school teachers. The report is an especially commendable effort to carry over the findings and techniques of research on the teaching of reading to the secondary-school level, where it has been customary to assume no responsibility for this subject.

A handbook on the use of tests in teaching reading From the Educational Records Bureau, in co-operation with Science Research Associates, comes a very practical handbook by Arthur E. Traxler on *The Nature and Use of Reading Tests* (Educational Records Bulletin No. 34). Dr. Traxler's training and experience make him particularly competent to prepare a bulletin of this type. The bulletin gives first a descriptive list of twenty-four tests of reading classified according to level of education from the elementary school to the college. The annotations not only are descriptive of the tests but give some data regarding the purposes for

which they are usable. The place of publication and the price of each test are also given. Following this is a section dealing with the use of reading tests in diagnosis and remedial instruction. Here the writer deals with an analysis of the reading achievement of groups of individuals, the selection of pupils for special help in reading, the study and corrective teaching of individual pupils, and the appraisal of remedial instruction. The discussion of these items is made concrete through the presentation and analysis of actual test scores for various classes and individual pupils. This treatment is followed by a list of some forty-five kinds of materials available for use in remedial, corrective, and developmental reading. Here again the source of publication or distribution and the price are given, and the aids are classified according to level of education for which they are intended. Dr. Traxler's bulletin will enable teachers to save many hours of searching for suitable reading tests. It also makes possible a more discriminating selection of tests for particular purposes.

Developing reading tests for use in special fields A publication of quite a different type from the foregoing is a booklet, *Development of Tests in Special Fields of Reading*, written by Hazel Pope Howland and L. L. Jarvie, of the Rochester Athenaeum and Mechanics Institute, and published by the Cooperative Study in General Education (6010 Dorchester Avenue, Chicago, Illinois). This bulletin reports the results of a number of years of experimentation in Rochester in dealing with the problems of reading at the post-high-school level. The bulletin deals with the development of tests for students in mechanical and construction departments, for students of publishing and printing, for those concerned with photographic technology, and for students in the field of retailing. The bulletin will be of particular interest to teachers in technical schools since the techniques used in developing tests in the four areas mentioned furnish a pattern for attempting a similar type of evaluation in other special fields. This work represents a pioneering type of reading research. Elementary schools have for some time discussed the necessity of developing flexibility in reading, but there have been few examples carrying this concept of flexibility to practical applications at the higher levels of education.

Suggestions on methods of reading the newspaper Professor Edgar Dale, of Ohio State University, has been experimenting for several years with ways of producing teaching materials aimed toward developing more discriminating newspaper readers. He has now translated the results of his study into a very stimulating book entitled *How To Read a Newspaper* (published by Scott, Foresman and Company). The book is a fine example of an effective organization of materials of instruction. It is also a good concrete illustration of the possibility of developing flexibility in reading. By using the extremely varied content which a newspaper contains, at a time when intelligent reaction to the news is particularly important, Professor Dale's work makes an important contribution to the teaching of reading.

INDIVIDUALIZATION OF INSTRUCTION

THE staff of the College of Education of the University of Minnesota has inaugurated a series of bulletins designed to help teachers, principals, and superintendents adapt instruction to individual differences. The first four of these monographs have just come from the press. Dean W. E. Peik, the general editor of the series, comments on the new project as follows:

The individualization of learning and of personal development is probably the most difficult single problem of instruction facing the teacher, the supervisor, and the administrator; it challenges them every hour of the day and at all levels. Because so many variables are involved, no single formula, plan, or panacea has yet been evolved that can offer an acceptable solution.

What should be done in any classroom must depend on the health, nutrition, and growth of individual pupils; the range of their mental ages and intelligence quotients; the diversity in their previous educational experiences; the kind of homes they come from; and the impressive differences in their interests, attitudes, and motivations. Of almost equal importance are the preparation, personal traits, and experience of the teachers; the adequacy of school and classroom equipment, supplies, and instructional materials; the policies of the local educational leadership; the reactions of parents; and the traditions of the community. These are but a few of the variables that make unique each grade, each class, and each child, and render futile any reliance upon one or two overworked plans for meeting these differences.

Education in our democracy is irrevocably committed to the ideal that every child is entitled to his optimum development. This cannot be accomplished

through inflexible grouping, uniform standards for all, mass instruction, routine teaching, emphasis on content and sheer memory, or regimes of penalties and disappointments for the slow learners and the easy path of mediocre performance for the most capable pupils. An adequate solution can only be achieved through the professional artistry of the teacher, who grows through continued self-education, through the trial and error of patient experience, and through critical educational thinking and experimentation. Individualization of instruction then becomes a continuing process of resourceful everyday adjustments based on clear objectives, comprehensive insights, and principles rather than specifics of method.

Number One of the series, written by the late Josephine C. Foster and entitled *The Children in Our Schools*, gives a broad consideration to the physical, intellectual, educational, emotional, and social factors which affect the adjustment and achievements of school children. Bulletin Number Two, written by Professor Walter W. Cook, deals with *Grouping and Promotion in the Elementary School*. The main problem treated in the bulletin is how to reduce variability of elementary-school classes by means of grouping, by promotion practices, and by effective teaching. Superintendents and principals will find Bulletins One and Two of particular help to them. Bulletin Number Three, prepared by the staff of the University Elementary Demonstration School, describes eleven teaching units for the elementary-school grades. Each unit is described in terms of its general setting, the initial planning involved, the development of the unit, outcomes, selected references, and lists of useful supplementary material. This bulletin is primarily for teachers and is sufficiently concrete to be of great practical value to them. The fourth volume in the series, *Adapting Instruction in Arithmetic to Individual Differences*, has been prepared by Leo J. Brueckner. Professor Brueckner first reviews the nature and the extent of individual differences and then describes a number of curriculum adjustments to deal with them. The latter part of the bulletin contains concrete material relating to teaching aids and adjustments for teachers. These four bulletins are to be followed by others dealing with problems of individualization of instruction.

Relating to the same general field of individualization is another bulletin concerned with *Teaching the Slow Learner*, prepared by Professor W. B. Featherstone, of Teachers College, Columbia University,

and published as the first of that institution's series of "Practical Suggestions for Teaching." Professor Featherstone gives a general overview of the problem ranging from methods of identifying the slow learner to methods of teaching the fundamental processes and methods of helping the slow learner with his personal problems.

The foregoing bulletins are useful additions to the literature on individualization. They are based on the assumption that individualization is a desirable mode of educating children. Certainly no one would deny that only by such individualized teaching can many problems of education be met adequately. On the other hand, there is need for a careful balancing of the values of an individualized program as contrasted with a socialized-group program. Children are more alike than they are different, yet the differences that do exist undoubtedly warrant very careful attention to the values of individualization. However, individualized instruction can become uneconomical of time, and it has certain limitations in respect to the development of some social values. Schools need some well-thought-out policy as to the place of individual and group instruction. There has been a gross imbalance in the direction of group instruction. Present emphasis on individualization seems entirely justifiable, but some directed overview is needed to preserve the effectiveness of individualization—an admittedly good procedure.

RURAL EDUCATION

THE United States Office of Education has made the following estimates for the school year 1941-42: number of elementary-school pupils, 20,707,000; number enrolled in one-teacher schools, 2,520,000; number of one-teacher schools, 115,000. From these data it appears that approximately one child out of every eight is enrolled in a rural one-teacher school. School people are often slow in recognizing the problems of rural education. A resolution presented to the general meeting of the British Columbia Teachers' Federation, urging the association to sponsor a modified course of studies for rural schools, is as pertinent to education in the United States as in Canada. In commenting on this resolution, Mr. Wesley Black, writing in the *B.C. Teacher*, says:

It has been too often assumed that the methods, materials, and "machinery" must be the same for the rural as for the urban schools, and that only the purposes might be different. The assumption that a small rural school should be set up and operated as a small edition of a large urban school results in a rather barren educational program for the rural school.

We feel that the problems of education for rural areas must begin with fundamental educational purposes and an understanding of the situation in which they are to be achieved, and then focus attention on the adaptation or development of methods, techniques, and materials designed efficiently to achieve them. Such a procedure would naturally include an interpretation of educational philosophy in terms of the rural school.

It is felt that rural children must be educated in terms of their individual interests, abilities, and needs, and to solve the life-problems which they are or will be facing.

It is most necessary that the basic objectives of education be interpreted in terms of [the] learner's rural environment if they are to be effectively realized through the educational program. The most important needs of a child can only be discovered through an understanding of his community, its people, its organization, its natural environment, and its attitudes.

Mr. Black then points out eight distinctive features of rural schools which affect their problems and procedures:

1. Personal relationships are strong in the rural community.
2. Farming is the chief occupation.
3. Cultural opportunities of the rural community vary:
 - a) Country people have their own arts and crafts.
 - b) Music is vital to the rural community.
 - c) Books are not easily available.
4. Rural facilities for health are inadequate.
5. Common characteristics of rural children are shyness and linguistic underdevelopment.
6. Inadequacies of poor home environment.
7. There is a wide age range in the rural school.
8. Many numbers of rural children are undernourished.

Rural teachers who recognize the importance of developing a suitable program for their pupils will be interested in a recent bulletin published by the Bureau of School Service of the University of Kentucky, which is entitled *A Work-Conference for Rural Teachers* and was prepared by Leonard E. Meece and Maurice F. Seay. The bulletin describes the outcomes of a summer conference held for rural teachers and, in addition, contains a wealth of concrete material for improving the work of rural schools. For example, ten pages are

given to detailed instructions on how to make a community survey. Suggested forms for gathering data are included. This type of project will be both interesting to the pupils who participate in it and valuable to the community in which such a survey is made. The bulletin also contains excellent concrete material on gardens and their relation to diet, the beautification of home and school, and food-producing farm animals. For each of the latter three projects a definite plan of work for elementary schools is presented. The bulletin will help to realize some of the objectives discussed by Mr. Black.

The periodical *Illinois Education* for October, 1941, contains an article by Assistant State Superintendent E. S. Simmonds on "Pupil Transportation and School Reorganization," in which the new Illinois law relating to pupil transportation is quoted. This law provides that after July 1, 1943, all elementary schools having an average daily attendance of fewer than seven pupils must close and transport their pupils to other schools, or they will receive no state aid—neither general apportionment nor special aid. The legislature was not willing to continue allotting state funds to help school districts support small, uneconomical school-attendance units. In this article Mr. Simmonds quotes a passage from Louis W. Rapeer's book *The Consolidated Rural School* to the effect that in Quincy, Massachusetts, "in 1874 a school with less than a dozen children was closed and the pupils carried to another one-teacher school, the union making a school not too large for one teacher. The district abandoning its school, after paying tuition and transportation expenses, found that its outlay was less than the amount which would have been required to maintain the old school." It is interesting to note that not until sixty-five years later did the legislature of the state of Illinois become convinced of the value of this seemingly sensible action of the Quincy, Massachusetts, schools.

THE AMERICAN COUNCIL ON EDUCATION

ONE of the most influential professional groups in education during the past quarter of a century has been the American Council on Education. While the Council's activities have been familiar to the leaders in the profession and to advanced students, the rank

and file of school people have known little about the nature of this organization. The name has been encountered with greater frequency during recent years as a result, in particular, of some of its better-known sub-projects, such, for example, as the work of the American Youth Commission and the Commission on Teacher Education. A report on *The History and Activities of the American Council on Education, 1941-42*, sets forth in some detail the story of its founding and the scope of its present activities.

The American Council on Education is a *council* of national educational associations; organizations having related interests; approved universities, colleges, technological schools, and private secondary schools; state departments of education; and city school systems. It is a center of co-operation and co-ordination whose influence has been apparent in the shaping of American educational policies as well as in the formulation of American educational practices during the past twenty-three years.

Since its establishment in 1918, the Council has reflected the peculiar genius of the American educational system, a system without national control, comprising a vast number of autonomous units working together for the establishment and improvement of educational standards. The Council devotes itself to scientific inquiry, to the provision of means for consultation, and to the stimulation of experimental activities by institutions and groups of institutions. Through conferences and investigations it seeks to clarify educational issues of national significance, to define problems, and to enlist appropriate agencies for their solution. As a result of the exchange of opinion and the discovery of facts it fosters agreements designed to improve educational practice. Thus the Council acts as a mobilizing force for the energies of the American educational system.

The operating budget for the Council for the year 1941-42 is \$97,500, and additional grants for special projects during this year total approximately \$770,000. Through its grants for special projects, the Council exerts a wide influence on education. It has served as a central directing agency or strategy group for many of the larger movements in education. The size of the subsidies for some of its projects has caused frequent queries as to what are desirable methods of carrying on such projects as the American Council has fostered. In view of the increased interest in such questions, the present publication of the American Council will be useful in informing the profession in greater detail as to the activities of the Council.

G. T. BUSWELL

THE UNIVERSITY OF CHICAGO DINNER

THE University of Chicago Dinner will be held at 6:30 P.M., on Wednesday, February 25, 1942, in the Italian Room of the Hotel St. Francis, San Francisco, California. All alumni and former students are cordially invited. It will assist the committee in charge of the arrangements if persons who plan to attend will secure their tickets in advance. The tickets are two dollars and may be obtained from Professor Robert C. Woellner, University of Chicago.

WHO'S WHO FOR JANUARY

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by G. T. BUSWELL, professor of educational psychology at the University of Chicago. WILLIAM H. JOHNSON, superintendent of the public schools of Chicago, Illinois, describes the pre-reading program used in Chicago schools and presents data to indicate the success of the pupils who have been trained by this plan. STANLEY I. THOMPSON, vice-principal of the Renton Junior-Senior High School at Renton, Washington, presents a detailed account of a course in which spelling and handwriting have been integrated, with resultant saving in time and in the energy of pupils and teacher and with no loss in achievement. HERMAN G. RICHEY, assistant professor of education at the University of Chicago, presents figures on school enrolments during the decade 1860-70 and indicates the influence of the war between the states on school attendance in the North and the South. VERNON G. CARTER, director of conservation education in the public schools of Zanesville, Ohio, describes an attempt to determine what the content of conservation education should be at various grade levels in the elementary school. D. BANKS WILBURN, assistant superintendent of the Berkeley County Public Schools, Martinsburg, West Virginia, suggests for Grade I a method of arithmetic instruction which enables pupils to grasp fundamental ideas and to learn simple arithmetic facts by their own efforts. WILLIAM C. REAVIS, professor of education, and NELSON B. HENRY, associate professor of education, both at the University of Chicago, present the first half of a list of selected references on public-school administration.

The writers of reviews in the current number DELIA E. KIBBE, elementary-school supervisor in the State Department of Public Instruction at Madison, Wisconsin. HAZEL DAVIS, assistant director of research of the National Education Association at Washington, D.C. V. L. BEGGS, superintendent of the public schools at Elmhurst, Illinois. ROBERT B. WEAVER, teacher in the Laboratory Schools at the University of Chicago. JESSIE CARTER, teacher in the Laboratory Schools at the University of Chicago.

DEVELOPMENT OF THE CHICAGO PROGRAM TO AID PUPILS LACKING READING READINESS

WILLIAM H. JOHNSON

Public Schools, Chicago, Illinois

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THE school which would make a sincere effort to provide equality of opportunity for its pupils should give special attention to those entering first-grade pupils who are found to be lacking in the normal readiness to learn to read which is essential to successful reading experiences. To this end a program was instituted in the Chicago public schools in the autumn of 1939¹ which was designed to focus the attention of principals and teachers, as well as parents, on this problem. Principals were requested to make a careful study of individual cases in their respective schools and to accept as a personal obligation the study of pupils entering Grade I. A special curriculum of activities was set up, and children not ready to read were provided with meaningful experiences designed not only to furnish vocabulary recognition and the development of other mental abilities but to stimulate confidence in children who tend to be shy and reticent.

At this writing the program has been in operation for four semesters, and it has evoked the enthusiastic interest of parents and teachers alike. In addition to the usual Grade I B (first semester) and Grade I A (second semester), a new grade designation, Grade I C, was set up to indicate pupils found by standardized tests and teacher observation to be not ready to read.

Children entering Grade I are given the Kuhlmann-Anderson Intelligence Test and the Metropolitan Reading Readiness Test, or similar tests. During the first few weeks of school, under this plan, all entering children are carefully observed for evidence of physical, emotional, social, or language immaturity. They are divided into

¹ William H. Johnson, "The Pre-reading Program of the Chicago Public Schools," *Elementary School Journal*, XL (September, 1939), 37-44.

four groups: those definitely ready to read, those probably ready, those probably not ready, and those definitely not ready. The two latter groups are given the grade designation I C and are handled under a special technique. The parents in each case are consulted, and a co-operative bond of understanding is set up between the parents and the school. This procedure has generally evoked co-operation on the part of the parents, who are often able to contribute valuable data pertaining to the pupil's early personal history. However, since children from underprivileged homes and from broken homes are more frequently found to be influenced by factors which contribute to a lack of readiness, parental co-operation in such cases is often less available.

REASONS FOR UNREADINESS

Possibly the most common reason for the lack of maturity found in I C children lies in the physical or medical history of the child. Case histories indicate that records of contagious diseases, undernourishment, and physical defects affecting sight, hearing, and glandular development offer some explanation for the lack of readiness. Children who have had the advantage of nourishing food and orderly care with a record of minimum illness make up the great majority of those of average or superior attainments.

A most common reason for lack of reading readiness as reported by principals is found in schools located in communities receiving beginners from homes in which foreign languages are regularly spoken. If such children have not been able to attend kindergarten or have been in kindergarten for only a short time, they are at a disadvantage in taking the standardized tests, and they tend to be shy and backward and to display a lack of self-confidence in association with other children who have had the advantage of English-speaking homes. However, it may also be said that, once this type of child acquires a working vocabulary, his progress is often very rapid and those having normal mental ability, or better, usually are able to overtake their classmates who go directly into Grade I B.

Another cause of immaturity in beginners is found in home conditions where there is an unnatural factor, such as the death of the mother, separation of parents, or extreme poverty and similar dis-

tress. In such cases the difficulty seems to lie in the limited experiences which have been made available to the children as well as in the severity of emotional difficulties. These children must be given every aid in acquiring normal relations with their associates at school and must have wholesome and effective stimulation in making friends and gaining thereby new interests and new outlooks. It is this differentiation in background which presents such obvious differences in beginning pupils. There is apparently no direct and definite remedy for this as yet unsolved problem in the American community. The public school must make every effort to give special attention and aid to these puzzled beginners.

Another group of children which comes in for special early attention in the I C class includes those of low mental ability. It is advantageous for such children to be identified early so that they may have the individual attention of the teacher in preventing the building-up of a failure complex and other limitations which repeated failure experiences in the primary grades tend to establish. The technique used is designed to enrich the experiential background of these children as well as to provide a program of learning within the range of their individual abilities. They must be provided with satisfactions arising from successful work. Such children are grouped in Grade I C for at least one semester and are moved along on the basis, to some extent, of their social age and physical development.

Defects of sight and hearing are determined early, for they play an important part in producing lack of readiness to read. In many cases these defects accompany other factors, the combination tending to produce immaturity and to accentuate the difficulty.

SOME RESULTS OF THE PROGRAM

The effect of this program is operating to reduce the traditional failure peak at the end of the third year. Children who have had an opportunity for success in the first year of school approach their second and third years with confidence that they will be able to succeed and keep pace with their associates.

One principal reports progress thus:

A more scientific approach to beginning reading was made this semester. The I B group was given the Metropolitan Reading Readiness and Kuhlmann-

Anderson tests. The children who had attended kindergarten were found to rank higher on the Metropolitan test.

Of the entire group, about twenty children were considered not ready for reading, when the mental age of 6.0 years was considered. The norms provided by the Bureau of Child Study were used in making these selections.

The final selection, considering all factors including the teachers' judgment, consisted of five children. These children were given pre-reading activities and are now, in the opinion of the teacher, ready to read.

TABLE 1

CLASSIFICATION OF PUPILS ENTERING GRADE I IN CHICAGO SCHOOLS
IN FOUR SEMESTERS AND PROGRESS OF THOSE
LACKING IN READING READINESS

	DATE OF ENTRANCE			
	September 1939	February 1940	September 1940	February 1941
Number of pupils entering Grade I . . .	21,326	14,998	22,081	16,387
Number of pupils placed in Grade I B . .	18,928	13,079	18,940	13,688
Number of pupils not ready to read . .	2,398	1,919	3,141	2,699
Promoted to Grade I B after one semester	1,970	1,604	2,631	2,197
Promoted to Grade I A after one semester	65	95	131	117
Specially promoted	13	30	12	51
Demoted		1	2	1
Not promoted	350	189	365	333
Progress in semester units:				
Number*	2,113	1,823	2,903	2,481
Percentage	88.12	95.0	92.42	91.92

* Obtained by adding the number of semesters of advancement made by the pupils (those promoted to Grade I A made two semesters' progress in one) and subtracting the number of semesters lost by those demoted.

The pre-reading classes in each school are organized to accommodate the needs of individual children. In a number of schools where there are enough I C children to make a class division, the whole group is given the various types of pre-reading activities designed to develop the memory span; to increase ability to do abstract thinking and to correlate concepts with responses, such as color recognition, the observance of similarities and differences in size, shape, and direction; and to remember various word forms. Where there are insufficient enrollees to make up a division, I C children make

up a separate section in a I B class and are given the training indicated above.

In all these classes the principals are asked to see to it that provision is made for individual differences in the techniques used. Teachers are encouraged to make a special effort to ascertain the particular reasons for the unreadiness of individual pupils and to devise a program for each child. As soon as a pupil demonstrates an interest and ability indicating reading readiness, he is introduced to the regular work of Grade I B. There is no set length of time during which a pupil is retained in Grade I C.

From Table 1 it will be noted that after training in reading readiness a rather significant percentage of pupils have been able, by means of double promotion, to complete in one semester the work of both Grade I B and Grade I A. As has already been noted, pupils coming from homes in which foreign languages are spoken are often able to overcome the disadvantages of their first weeks in school and soon demonstrate their power to learn.

The following studies, made recently in two of our elementary schools, are typical illustrations of children who enter school with a lack of readiness because of the foreign-language handicap.

CASE STUDY OF CHILD IN GRADE I C WHO DEVELOPED RAPIDLY

Harriet entered the Brown School in September, 1939. She was placed in I C in view of the following test results: Metropolitan Reading Readiness Test—total score, 47; Kuhlmann-Anderson Intelligence Test, Grade I, First Semester—chronological age, 6-0; mental age, 5-5; intelligence quotient, 90.

For the first few weeks in Grade I C, Harriet had a difficult time. She did not care to join any group activity. Because she was small, the children wanted to make a fuss over her. This did not please Harriet at all. Her favorite part of the room was the library table, where she would go every chance she could get. The books on the table interested her very much.

By this time some of her background became known to her teacher. Harriet's family spoke only Greek at home. This explained much of her conduct. Her inability to understand English kept her from group activity and also, at times, made her seem deaf.

Harriet was in a division room consisting of children in Grades I B and I C. It was the custom of the I B teacher to take some of the children out of the room while the I C teacher taught reading to a group whom she thought ready to read, judging from their response over a period of time. Because of Harriet's evident love of books and the knowledge that she had a language difficulty at

the time she had been tested, Harriet was selected to be one of the reading group. The method used was non-oral. The association of word and picture seemed to be what Harriet needed, for she learned to read very quickly. At the end of the semester she was placed in Grade I A, as her reading was on that level. At the end of Grade II A, Harriet was given a double promotion. The results of tests given since are as follows: April 12, 1940, Chicago Reading Test, Grades II, III, and IV—grade equivalent, 3.3; April 12, 1941, Kuhlmann-Anderson Intelligence Test, Grade IV—chronological age, 8-8; mental age, 10-7; intelligence quotient, 122; April 24, 1941, Chicago Reading Test B2—grade equivalent, 5.2.

Harriet has been very fortunate in having her language difficulty overcome so early in her school life. The only real failure she has ever experienced was in her first few weeks in school. After she began reading, her backwardness in participating in group activity gradually wore away. At present her teacher does not notice any difference between Harriet and the other children except, perhaps, that Harriet is brighter.

However successful Harriet has been, things have not been too easy for her. She has had her problems to solve. But because she was given the tools, she has been able to solve them.

CASE STUDY OF I C CHILD WHO IS A SLOW LEARNER

Vito entered Grade I at the age of six years and two months, in September, 1939. After allowing for a short period of adjustment to new surroundings, new faces, and new schedules, he was subjected to the regular I B testing program. The results indicated a mental age of four years and four months, an intelligence quotient of 69, and a reading-readiness score of 49.

Further study of the child revealed that he had a poor environmental background. A foreign language was spoken in the home, the family was on relief, and the eight members of the family occupied five rooms. The boy was undernourished, timid, and immature for his age. Although the results of the tests were not entirely valid because of the language handicap, the child was placed in a I C group in order to build up his vocabulary, improve his physical handicaps, and overcome his timidity.

A rich background of experiences was provided for him through pictures, stories, conversation, games, rhythms, songs, construction activities, simple seatwork, and charts. He was also given a free lunch daily in order to build him up physically. During the first three months in Grade I C, slight progress was noted, although the child did overcome his timidity enough to talk about some of his simple experiences.

In January, 1940, a Bureau of Child Study examination was made, the results showing that our subject had reached a mental age of five years and nine

months and had an intelligence quotient of 88. The following recommendations were made by the psychologist and carried out by the room teacher: "(1) continue in the regular grade, (2) continue to provide with pre-reading activities, (3) praise and encourage whenever warranted, (4) provide with socializing responsibilities."

In February, 1940, he was tested again by the adjustment teacher, in accordance with the Chicago testing program. This time the results were more satisfactory. His mental age was six years and eight months, and the Metropolitan Reading Readiness score, 84. He was then placed in a I B class. During the spring semester he learned slowly but steadily and in June, 1940, was promoted to Grade I A.

As time went on during the autumn semester of 1940, a growth in his ability of self-expression and a loss of timidity were noted. Though still a slow learner, he progressed sufficiently to be promoted to Grade II B in January, 1941.

At present [spring, 1941] he is in Grade II B, getting special help and encouragement from his teacher. He no longer seems undernourished, timid, nor fearful. He has taken on weight, mingles freely with his schoolmates, and speaks English rather well. He has become a well-adjusted personality, although he will probably always learn at a rate somewhat slower than normal.

The following pre-reading report for the first ten weeks of the autumn semester of 1940 was submitted by the principal of one of our schools; it shows the type of program in effect generally.

In September, twenty-three pupils in Grade I B showed by their scores on the Metropolitan Reading Readiness Test and other tests that they were not ready to read. The teacher devised reading games and activities in reading for these pupils. Slowly the pupils began to read, and at present there are only ten left in the pre-reading group. These children come from families where Italian is the only language spoken at home.

Below is an outline of some of the activities, games, and exercises used by the teachers.

1. To enlarge the children's experiences
 - a) Walks in the school and around the building
 - b) Pictures and objects on display in room
 - c) Hearing other children tell their experiences
2. To develop language ability
 - a) Conversation about children's own experiences, pictures, objects, pictures they draw, articles they model
 - b) Question-and-answer game. Teacher asks about the children (names, age, address), their clothes, family, pets, etc., and children answer in sentences.
 - c) Reproduction of stories. Children reproduce a story of two or three sentences told by the teacher.

- d) Story-telling. Encourage children to tell any story they know.
 - e) Original stories, such as dreams. Children play they are asleep. Teacher suggests what to dream about—a new doll, wagon, play they are a bird, etc. Children wake up and tell dream in one or two sentences. Community stories. Several children contribute a sentence about the story subject. This holds children to a central idea.
 - f) Dramatization of stories and of experiences
3. To train in habits of observation
- a) Name all objects children can see in room, on walk, in pictures, etc.
 - b) Game of choosing children. Three or four children chosen by the teacher stand in front of the room and then take their seats. One child chooses the same children to stand in front.
 - c) Look for similarities and dissimilarities of objects in room, in pictures, children's dress, flowers, etc.
 - d) Game of classification: all things that fly, all objects of same color, objects mother and father use
4. To develop co-ordination and control of muscles
- a) Physical exercises (calisthenics)
 - b) Rhythm (marching, skipping, high-stepping horses, picking apples, etc.)
 - c) Handwork (weaving, clay-modeling, tracing, cutting, coloring, pasting, tying)
 - d) Mother Goose rhymes and songs
 - e) Singing up and down the scale with Mother Goose rhymes
5. To train eye-movements
- a) Counting left to right
 - b) Following marks teacher makes on blackboard for rhythm
 - c) Eye exercises: look up, down, left, right, at window, at door, etc.
6. To train ear
- a) Recognize sounds of animals, bells, whistles, metal, wood, etc.
 - b) Game of recognizing children's voices
 - c) Voice-inflection game. Imitate teacher's inflection.
 - d) Articulation. Imitate phonetic sounds.
7. To train memory
- a) Verses: Mother Goose, safety, health, simple rhymes
 - b) Games: who can remember the most things he saw on walk, on table, etc.
8. Simple workbooks
- a) Recognition of a few simple words, placing the words under the pictures
 - b) Coloring the pictures

Of the twenty-three pre-reading group pupils, thirteen are now reading primers and first readers. The other ten are still reading from the blackboard and two primers. In January the entire twenty-three pupils are to be tested again to determine their progress.

PLACEMENT STUDY

A study has recently been made by a committee of principals, representing a district including thirty-nine elementary schools, to discover the later placement of a number of children who were

TABLE 2
GRADE PLACEMENT AT END OF SEMESTER BEGINNING IN
SEPTEMBER, 1940, OF 662 PUPILS CLASSIFIED FOR
GRADE I C IN SEPTEMBER, 1939

Grade Placement in 1940	Number of Pupils	Grade Placement in 1940	Number of Pupils
I C.....	7	Miscellaneous (ungraded, 17; excused, 3; deceased, 1).....	21
I B.....	43		
I A.....	79		
II B.....	240		
II A.....	92	Total.....	662
Transferred out.....	180		

TABLE 3
DISTRIBUTION OF 551 PUPILS ACCORDING TO NUMBER
OF MONTHS SPENT IN GRADE I C

Number of Months	Number of Pupils	Number of Months	Number of Pupils
1.....	9	10.....	38
2.....	60	11.....	0
3.....	41	12.....	3
4.....	43	13.....	0
5.....	309	14.....	1
6.....	17	15.....	6
7.....	8	16.....	1
8.....	3	Total.....	551
9.....	12		

originally placed in Grade I C during the semester beginning September, 1939. Tables 2 and 3 indicate the results of the study.

An interpretation of this summary indicates that at the end of the third semester approximately 36 per cent of the children were in the expected Grade II B, 14 per cent were above the expected grade, and 20 per cent were below grade. It is also significant that approxi-

mately 84 per cent of all pupils remained in Grade I C for only five months or less. This fact indicates that the many deficiencies or blocking factors present at the start of the semester were eliminated or sufficiently removed to allow placement in the regular Grade I B at the end of one semester. The newer techniques and materials of instruction were apparently adequate for the 84 per cent of the pupils who remained five months or less in Grade I C.

The results of our program thus far have indicated significant possibilities for study and investigation of those factors which may have a bearing on the immaturity of entering pupils. From a practical standpoint we feel that our program has been successful in stimulating the interest of both teachers and parents in a sympathetic handling of individual cases. The personal acquaintance of the principal with individual cases of immaturity has served to give the entering pupil, naturally timid because of his lack of development, a feeling of confidence and security at the start of his school career. Through the development of effective techniques in cases of immaturity, many children can be saved from failure in the early school years and its consequent unfortunate effect on growing personalities.

INTEGRATION OF FIFTH-GRADE SPELLING AND HANDWRITING

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*

FACTORS CONCERNED WITH IMPROVEMENT OF SPELLING AND HANDWRITING

IN AN effort to solve the problem of time allotments, the writer made a thorough analysis of subject-matter offerings in the various grades of his elementary school and discovered that spelling and handwriting had thus far successfully resisted all efforts toward integration. Attempts to teach spelling and handwriting incidentally within other subject-matter areas had clearly failed. Comments such as the following were often heard: "Why can't young people learn to spell?" "What terrible handwriting!" "Handwriting is an art of the past." Further analysis revealed that textbooks of the current type seem to be ineffective in the presentation of subject matter. Moreover, teachers appeared uninterested in teaching spelling or handwriting.

In 1934-36 the writer launched a two-year study designed to discover whether the factual materials, which of necessity must be mastered in handwriting and spelling, could be integrated with the other school subjects and made interesting. Teaching materials were devised and used in the fifth-grade classes in two elementary schools for a period of two years. One of the schools was a six-grade school, with a teacher assigned to each grade for all subjects except music and art. The second school was a platoon school of six grades, in which the home-room teacher taught reading, language, arithmetic, spelling, and handwriting to each of two sections for a half-day. Results were tabulated for the test group of 149 pupils and a control group of 150 pupils.

An integrated course was prepared which incorporated the best techniques of earlier workers in the fields of spelling and handwriting.

The course consisted of a series of mimeographed sheets issued weekly and kept in loose-leaf notebooks. Besides the necessary explanations with regard to procedure, thirty teaching units and six review units were supplied. Each of the teaching units was one page in length. Each began with a story, which included the total spelling vocabulary. The story was followed by a list of the twenty-five spelling words to be taught. The final section of the page presented a specific handwriting problem and suggested activities for use in practice to master the problem. Each of the review units consisted of a one-page form containing blanks for the entry of misspelled words and directions for pupils to follow during review week.

Tidyman,¹ Almack and Staffelbach,² and others have repeatedly reported evidence that spelling achievement is promoted by visual, motor, or vocal experience with a word. If such experiences promote learning, then it follows that textbooks should encourage these experiences. In the case of visual perception a definite barrier to this objective is established with the use of printed textbook materials; for a transition to cursive writing is necessary at the moment when the writing of the words is introduced. If the advantages of visual perception are to be realized, both textbook material and the pupils' writing must be in printed or cursive form. Hertzberg,³ in a study of four methods of teaching handwriting, reported that direct learning by means of a model was the best method of teaching letter forms. For integrating handwriting and spelling it could be concluded that a textbook in cursive writing would serve as a handwriting model and at the same time encourage spelling mastery through visual perception.

The experimental course used in this study contained the words of the spelling vocabulary in cursive form at least two times: once as a part of the introductory story and once in a spelling list. The

¹ Willard F. Tidyman, *The Teaching of Spelling*. Yonkers-on-Hudson, New York: World Book Co., 1919.

² John C. Almack and E. H. Staffelbach, "Method in Teaching Spelling," *Elementary School Journal*, XXXIV (November, 1933), 176-77.

³ Oscar Edward Hertzberg, *A Comparative Study of Different Methods Used in Teaching Beginners To Write*. Teachers College Contributions to Education, No. 214. New York: Teachers College, Columbia University, 1926.

appearance of the word in its cursive form thus served as a model for the evaluation of the pupil's handwriting and for the establishment of accurate visual imagery of the words.

Observation of classes and the teachers' comments indicated a noticeable letdown in pupil interest with the shift from other subjects to spelling or handwriting periods. Davis reported that the teachers of Richmond, Indiana, found the common causes for spelling difficulty to be (1) lack of a systematic method in learning to spell, (2) poor writing, (3) faulty pronunciation, (4) bad attitude toward spelling, and (5) failure to associate the sounds of letters with the spelling of words.¹ Pupil interest is obviously the quality needed to cope with the difficulties reported by Davis. Tool subjects, such as spelling and handwriting, have in themselves little to challenge interest, for their improvement involves mainly drill and repetition. The introduction of topics which by their nature challenge pupil interest provides a means for encouraging interest in the tool subjects. The experimental course developed in this study capitalized on the pupils' love for reading and their interest in timely events as a means of motivating mastery of spelling and handwriting.

Weekly units were introduced with a half-page story concerned with a timely subject and written in cursive form. The stories were planned to present the usual social, economic, and school experiences of a fifth-grade boy and his sister. Interest in the social implications of the topics introduced encouraged pupils to begin the work of each new unit with zest. The use and the meanings of the words were demonstrated incidentally, since the entire spelling vocabulary appeared somewhere in the introductory story. Because each unit was planned to introduce, for study, a specific writing difficulty, the cursive writing of the story served as an excellent example for demonstrating the proper writing techniques presented in the unit.

TIME EFFICIENCY

The fact that both a spelling and a handwriting goal can be achieved with one and the same exercise suggests that with an integrated course of study less time should be required to accomplish

¹ Georgia Davis, "Remedial Work in Spelling," *Elementary School Journal*, XXVII (April, 1927), 620.

satisfactory results. Twenty-minute periods dealing with narrow lines of subject matter are out of harmony with present-day trends; the curriculum nowadays is considered in terms of broader subject-matter areas. Integration of spelling and handwriting essentials permits the elimination of two short periods in favor of one longer period. The putting-away of one set of materials and the arrangement of another can be avoided with a textbook incorporating the subject matter of both spelling and handwriting. A system of study designed to draw understandings from other subject fields saves time in that introductions to materials can be simplified. The experimental course in this study incorporated these savings and was established as a thirty-minute period replacing a previous twenty-minute spelling period and a fifteen-minute handwriting period.

CONTENT AND METHOD OF SPELLING INSTRUCTION

Early work in the preparation of study materials indicated that the spelling vocabulary must be chosen with extreme care. At the rate of 25 words a week, the average school could present only 750 words in a year or a total of 3,000 words in Grades III-VI, inclusive. The words selected for the experimental course of study were chosen from the Breed list,¹ the Morrison list,² and the Stanford list.³ Words assigned to Grade V by three lists were chosen first. Words assigned by two lists to Grade V and by the third list to Grade IV or VI constituted the second choice. The final group of thirty words was chosen from words appearing on any two of the lists for their value as experience words in helping to write the introductory stories.

Whether to use the test-study-test method, the study-test method, or some other method was a problem which offered a real challenge in developing the experimental course. Early spelling research has indicated that a pupil gains nothing from studying words already known to him, but it also has suggested that there is tremendous

¹ Frederick S. Breed, *How To Teach Spelling*. Dansville, New York: F. A. Owen Publishing Co., 1930.

² J. Cayce Morrison, *The Morrison Speller*. Syracuse, New York: Iroquois Publishing Co., 1930.

³ John C. Almack and Elmer H. Staffelbach, *The Stanford Speller*. Chicago: Laidlaw Bros., 1931 and 1932.

value in systematic review. Contacts with words and familiarity with word meanings are indicated as vital to the successful spelling of words. From these findings it appears that a flexible method incorporating the advantages of both the test-study-test and the study-test methods would be most desirable.

Utilization of the spelling words of the weekly unit as handwriting practice material makes it possible for contacts with words, recall of doubtful words, and practice in the identification of unknown words to be obtained on an individual basis and removes the need for a pretest. The principles established by Tidyman¹ have come to be the basis in most modern textbooks for recommendations on how to study a word. Tidyman's five major steps include: (1) a process of pronunciation and enunciation; (2) a process intended to cultivate visual imagery, sometimes with verbal experience, such as whispering the letters; (3) a check with the textbook copy to insure correct visual and oral impressions of the word; (4) an introduction of a motor experience with the word by some type of writing exercise; and (5) an emphasis on drill designed to co-ordinate oral, visual, and motor experiences with the word. Some investigators, especially Morrison,² introduce a consideration of meaning and a consideration of word use in the fifth step. The fourth and the fifth steps outlined above provide a common ground upon which to integrate the technical phase of spelling and handwriting in textbook materials. The experimental course, in addition to including these principles, required that every sixth week should be devoted to a review of the materials presented during the previous five weeks. The review week also provided a definite time for the correction of individual difficulties.

CONTENT AND METHOD OF HANDWRITING INSTRUCTION

A survey of handwriting textbooks revealed little agreement on letter forms. It was necessary, therefore, to construct a convenient and simple handwriting system for the integrated course. Simplicity of letter form and standardization of basic strokes were taken as major objectives in preparing the handwriting materials for this study. The recommendations of handwriting investigators were used

¹ Willard F. Tidyman, *op. cit.*

² J. Cayce Morrison, *op. cit.*, pp. viii, xi.

for guidance in the development of the course. The findings of Billington¹ with regard to the frequency of letter combinations have been used as a basis for the construction of drill material. The experimental materials, which were patterned after the California course of study,² were developed with special emphasis on grouping into families the letters with similarity of contour and of strokes. Homogeneous groupings of small letters, the construction of which is achieved with the same basic strokes, were selected as problems for special emphasis in the first twelve weekly units. The second twelve weekly units stressed the most frequently used small letters, with special attention to the beginning and the ending strokes. The third twelve weekly units dealt with word spacing, capital letters, speed, quality, neatness, and symmetry. Drill exercises were designed to include the words of the spelling list. Practice periods thus had a dual value in that handwriting practice was used to promote a knowledge of the letters included in the spelling list.

INTEGRATED TEACHING PROCEDURE

The integrated course provided a routine consideration of the subject matter introduced in each unit. Teaching units began on Monday of each week with a consideration of the social implications of the introductory story. The story was read, and pupils were encouraged to give oral discussions of personal experiences related to the subject of the story. Each of the twenty-five spelling words was written on the blackboard and pronounced by the teacher. Pupils were asked to listen carefully to the pronunciation of each word and to repeat it softly after the teacher. Difficult parts and double letters were noted by teacher and pupils. Longer words were first studied in syllables and finally pronounced as complete words. Tuesday, Wednesday, and Thursday were devoted to written study of the spelling vocabulary, with special emphasis on the specific handwriting problem indicated for consideration on the study sheet. Pupils were encouraged to proceed by the following steps:

¹ Lillian Emily Billington, "A Study of Handwriting Methods and Materials in Elementary School." Unpublished Master's thesis, Stanford University, 1934.

² *Suggested Course of Study in Oral and Written Expression for Elementary Schools.* Department of Education Bulletin No. 15. Sacramento, California: State Department of Education, 1933.

1. Pronounce the word softly and copy it by syllables.
2. Underline the hard part of the word and compare it with the copy.
3. Close your eyes, pronounce the word, and try to spell it.
4. Write and say the word from memory several times, saying the letters to yourself as you write.
5. Repeat this procedure with four other words of the lesson.
6. Try to write the five words correctly from memory. (a) If you can, study the next five words. (b) If you cannot, repeat the study for those words which you had wrong.

Pupils who were unfamiliar with the meanings of words in the spelling vocabulary were asked to look them up in the dictionary. The teacher on these days worked with pupils individually by offering criticisms of handwriting, by adjusting writing positions, by assisting with dictionary work, and by assigning exercises to correct special problems. Friday's work began with a test of the twenty-five spelling vocabulary words, after which the words were checked for correctness by the pupils. The results were tabulated on individual spelling-progress charts, and words misspelled were entered on individual spelling lists for the next review lesson. The remainder of the period was devoted to handwriting practice in a manner prescribed by the teacher.

The review units were devised as a means of giving periodic attention to areas of the subject matter not completely mastered by the teaching units. The review week provided time for restudying and retesting words missed in the five preceding weekly units. During the review week tests of speed and of quality in handwriting were administered, and the results were tabulated on appropriate progress charts. Handwriting activity, which required pupils to work on materials from other classes, such as language or social science, was assigned to pupils not engaged in spelling review. The written material produced by the pupils in review week was subjected to spelling and handwriting criticism and was used by the teacher as a specimen for judging size, color, slant, letter-spacing, beginning strokes, ending strokes, word-spacing, and letter form.

RESULTS

Two groups of pupils whose home backgrounds and intelligence quotients were approximately the same were selected to test the

value of the integrated course. The experimental group of 149 pupils was taught by four teachers using the integrated course of study. The control group of 150 pupils was taught by four teachers using their usual methods. Thirty minutes daily were allowed for the integrated course. The control group studied spelling and handwriting in separate periods. Twenty minutes were allowed for spelling and fifteen minutes for handwriting. All the pupils in the control group used the Rice manual¹ as a textbook in handwriting. In spelling, two teachers of the control group used the textbook *Growth in Spelling*² and the test-study-test method. The other two teachers used *The Stanford Speller*³ and followed in detail the authors' instructions.

Table 1 indicates the relative abilities of the pupils in the two groups compared with Terman's norms for intelligence quotients of school children.

All pupils were given standardized tests in spelling, writing quality, and writing rate. The tests were administered at the beginning of the year, at the end of the first semester, and at the end of the second semester. Each semester included ninety school days for all the pupils in the study.

The spelling tests consisted of twenty-five words taken in consecutive order from the 88 per cent list of the Ayres Spelling Scale for Measuring Ability in Spelling. No words were repeated on the tests. Table 2 indicates the achievements of the two groups. On the first test, before fifth-grade teaching began, the control group showed slightly better spelling achievement than the experimental group. By the end of the first semester the achievement of the experimental group had surpassed that of the control group, and on the final test there was a decided advantage in favor of the experimental group. It should be noted that pupils at the lower quartile seemed to profit most by the integrated course. The tendency of the upper 25 per cent in each group to grow at a lower rate is probably explained by

¹ W. J. Rice, *The Rice System of Business Penmanship*. Bellingham, Washington: W. J. Rice, 1926 (ninth edition).

² Edward L. Thorndike and Julia H. Wohlfarth, *Growth in Spelling*. Yonkers-on-Hudson, New York: World Book Co., 1929.

³ John C. Almack and Elmer H. Staffelsbach, *op. cit.*

the fact that test difficulty was not great enough to measure the greatest achievement possible for this group.

Handwriting quality was measured by the Gettysburg edition of the Ayres Measuring Scale for Handwriting. Pupils were asked to write the memorized words of the address for two minutes. Each pupil's writing was then evaluated by two teachers, and a composite

TABLE 1
DISTRIBUTION OF PUPILS IN EXPERIMENTAL AND CONTROL
GROUPS AND COMPARISON WITH TERMAN'S NORMS

INTELLIGENCE QUOTIENT	EXPERIMENTAL GROUP		CONTROL GROUP		PERCENT- AGE IN TERMAN'S NORMS*
	Number	Per Cent	Number	Per Cent	
130 and above.	1	0.67	1	0.67	1
128-29.....	1	0.67	1	0.67	1
125-27.....	1	0.67	1	0.67	1
122-24.....	1	0.67	2	1.33	2
116-21.....	4	2.69	5	3.33	5
113-15.....	6	4.03	7	4.67	5
110-12.....	13	8.72	11	7.33	5
108-9.....	7	4.70	7	4.67	5
93-107.....	75	50.34	74	49.33	50
92.....	4	2.69	5	3.33	5
89-91.....	9	6.04	9	6.00	5
86-88.....	11	7.38	10	6.67	5
79-85.....	10	6.71	9	6.00	5
77-78.....	2	1.34	3	2.00	2
74-76.....	2	1.34	2	1.33	1
71-73.....	1	0.67	2	1.33	1
Below 70.....	1	0.67	1	0.67	1
Total.....	149	100.00	150	100.00	100

* Lewis M. Terman, *The Intelligence of School Children*, p. 8. Boston: Houghton Mifflin Co., 1919.

value was determined by the investigator. At the beginning of the year the medians of both groups were approximately the same as that found by Ayres to be the achievement of the lower 38 per cent of all fifth-grade pupils. Table 2 indicates that the writing quality of both groups was decidedly inferior. Growth in writing quality for both groups was slow, with a slight advantage in favor of the better writers. Experimental-group pupils in the upper 25 per cent were the only pupils showing satisfactory growth in quality for the year.

The writing rate was determined by counting the number of letters written in two minutes and dividing the total by two. The Ayres scale establishes sixty-four letters a minute as an acceptable

TABLE 2
SUMMARY OF RESULTS ON TESTS OF SPELLING AND HANDWRITING

TEST	PERCENTAGE OF WORDS SPELLED CORRECTLY*		SCORE ON HANDWRITING QUALITY†		NUMBER OF LETTERS WRITTEN PER MINUTE‡	
	Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group
First test:						
Lower quartile.....	44.6	49.1	25.6	31.0	51.6	58.7
Median.....	64.3	68.3	33.2	36.9	65.0	72.0
Upper quartile.....	82.3	86.6	38.3	43.9	77.5	85.8
Second test:						
Lower quartile.....	65.6	58.5	32.6	32.6	58.7	60.2
Median.....	82.9	77.4	38.5	38.0	72.4	71.7
Upper quartile.....	93.7	93.2	46.0	44.9	84.0	85.2
Third test:						
Lower quartile.....	78.1	63.5	34.9	33.0	66.6	62.1
Median.....	90.8	84.5	41.9	38.0	80.2	74.6
Upper quartile.....	97.0	95.8	50.4	47.1	93.4	89.2
Gain between first and second tests:						
Lower quartile.....	21.0	9.4	7.0	1.6	7.1	1.5
Median.....	18.6	9.1	5.3	1.1	7.4	-0.3
Upper quartile.....	11.4	6.6	7.7	1.0	6.5	-0.6
Gain between first and third tests:						
Lower quartile.....	33.5	14.4	9.3	2.0	15.0	3.4
Median.....	26.5	16.2	8.7	1.1	15.2	2.6
Upper quartile.....	14.7	9.2	12.1	3.2	15.9	3.4

* The median norm established by the publisher of the Ayres Spelling Scale for Measuring Ability in Spelling is 88.

† The median norm established by the publisher of the Ayres Measuring Scale for Handwriting is 50.

‡ The median norm established by the publisher of the Ayres scale is 64.

fifth-grade standard for rate. It will be noted from Table 2 that both groups were writing fast enough for fifth-grade pupils on all tests. The pupils above the median in both groups accomplished results decidedly above the Ayres standard. The control group was

the more static of the two groups and showed little change throughout the year. The experimental group showed a constant growth from test to test, although the rate of writing for the group was probably too fast.

CONCLUSIONS

This study has demonstrated that spelling and handwriting can be integrated and that the achievement of pupils studying such a course is as high as that of pupils studying these subjects in separate periods with standard textbooks.

The experimental course made possible savings in time, in teaching effort, and in pupil energy. The introduction of information from social-science and language classes was instrumental in developing an interest for the study of spelling and handwriting not found in the traditional classes. The integrated course held a challenge for every child because the activities were varied and offered to all an opportunity for self-improvement. With every child working on curriculum content, the time-occupying practices resorted to for gifted pupils in traditional spelling classes were entirely eliminated. Visual perception in the integrated course was used as an aid in the teaching of spelling and handwriting, and pupils having a highly developed sense of visual imagery accomplished tremendous individual improvement. Although the tests used did not give a complete record of achievement in spelling, results obtained did indicate the trends of improvement. Tests indicated that spelling was more efficiently taught by the integrated course; that handwriting previously had been poorly taught to all pupils in the study; that the better writers improved their handwriting quality in the integrated course; and that handwriting speed, although faster than Ayres's standards, increased to a greater degree when the integrated course was used. It appears from this study that handwriting is a technique on which practice must be started at an early age and that a developmental period of several years is required. Since results reported in this study cover only one year's effort, it is probable that a true evaluation of the systems of teaching handwriting is not indicated in this study. This study has, however, indicated sufficient accomplishment to justify the printing and the use of materials incorporating the principles developed by this experiment.

THE PERSISTENCE OF EDUCATIONAL PROGRESS DURING THE DECADE OF THE CIVIL WAR. I

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THE study of the persistence of educational development during the period of the Civil War and the early years of Reconstruction must take into account the status of education before the war as well as the facts with respect to its later development. The educational development attained by the nation, the sections, and the individual states by 1860 has been described in numerous accounts. In these it has not been unusual to assert that in the northern states the American public-school system was firmly established at the outbreak of the war or even earlier. With respect to the South, as Knight has pointed out, it has often been stated "that there was no public-school system . . . prior to the war, that little effort for education had been made there before that time, and that a lack of educational tradition for all the people was largely responsible for the war and its deplorable consequences."¹

Knight's careful study, based on evidence found in school laws, governors' messages, reports of administrative officers, and other documents, revealed that "in origin, organization, and results, so far as results can be compared, educational effort in one section of the Union before the war was very similar to that in other sections."²

The writer, in an earlier study,³ concluded that the development of state school systems in the North before the war has been exaggerated, that the educational development in the South was further advanced than is generally reported, and that the differences be-

¹ Edgar W. Knight, *Public Education in the South*, pp. 307-8. Boston: Ginn & Co., 1922.

² *Ibid.*, p. 310.

³ Herman G. Richey, "Reappraisal of the State School Systems of the Pre-Civil-War Period," *Elementary School Journal*, XLI (October, 1940), 118-29.

tween sections and states have been overemphasized. An appraisal of education based on measures of actual accomplishment in providing opportunity for the children revealed that, although differences existed in the adequacy of the provisions made by the various states and sections, these differences might be accounted for as easily in terms of conditions which characterized rural society, both North and South, as in terms of geographical location or social organization.

It is quite evident that in the decade before the war the educational programs of the rural states, both North and South, were inadequate and, by most standards, inferior to those of the industrial urban states. Progress in education, however, was evident throughout the nation, all states and sections sharing in the general advance. The purpose of this article is to present evidence with respect to the influence of the war on education in the different states and sections insofar as that influence may be inferred from a comparison of the various programs of education at the beginning of the war with those found ten years later.

The data of this study are largely the educational statistics of the period 1860-70 taken, for the most part, from the Census reports¹ and checked against the available reports of state school officers. Census figures are admittedly inaccurate and for some purposes may be of little value. On the whole, however, the statistics are the results of careful efforts to collect data objectively, and they are probably as reliable as most evidence on which our social and economic history is based.² Furthermore, their limitations are well known, and

¹ a) *Statistics of the United States (Including Mortality, Property, &c.,) in 1860; Compiled from the Original Returns and Being the Final Exhibit of the Eighth Census.*

b) *Population of the United States in 1860; Compiled from the Original Returns of the Eighth Census.*

c) *The Statistics of the Population of the United States . . . Compiled from Original Returns of the Ninth Census, (June 1, 1870).*

d) *The Vital Statistics of the United States . . . Compiled from the Original Returns of the Ninth Census, (June 1, 1870).*

² Enrolment figures are from institutional rather than from individual returns. The number who reported themselves as having attended school during the census years is generally smaller than that reported by the institutions attended. The former may be considered an aggregate return, the latter something of an average return. These two returns differ considerably for several states. For example, in some states the schools

allowance may be made for them. Certainly, these figures are more comparable for the several states than are the statistics found in the reports of chief state school officers and similar documents.

ENROLMENT IN THE SCHOOLS

Constitutional and legislative provisions, as important as they are as sources for the history of education, have not always reflected actual conditions. The enactment of a law cannot be taken as conclusive evidence that the conditions evinced actually existed nor that those enjoined ever came to exist. The educational programs of states have often continued weak and poorly organized long after constitutional and legislative mandates for the establishment and maintenance of adequate systems of education have been issued. Records of enrolment in the schools may be, in many instances, a more significant measure of the status of education. Data on the enrolment in American schools in 1870 are presented in Table 1.

Percentage of the free population enrolled in all types of schools.—The percentage of the total free population¹ enrolled in schools of all types² in the United States decreased from 19.9 in 1860 to 18.7 in

were commonly kept open the entire year, "yet certain classes of the population were able to send their children to school for but a small portion of the time." In such states the individual returns are higher than the institutional returns. The superintendent of the Census called particular attention to this situation in the middle and the eastern states, which he attributed to the fact that mechanical and industrial pursuits made the demand for the labor of children so pressing that it was "almost impossible to enforce laws requiring their attendance at school during one or two 'quarters,' while at the same time, it [was] in precisely these communities that schools [were] maintained during the entire year" (*The Statistics of the Population of the United States . . . Compiled from Original Returns of the Ninth Census, [June 1, 1870], pp. 448-49*). In those states in which the attendance returned by institutions was greater than that returned by families, there were likely to be duplicate enrolments in summer and winter schools or in public and private schools.

¹ The percentages for 1860 are based on the free population, white and Negro; for 1870, on the entire population, white and Negro, the latter including former slaves as well as colored persons who had been free.

² Includes public and "not public" schools. In 1860 the kinds of "not public" schools were (1) colleges and universities and (2) academies and other schools. In 1870 the kinds of "not public" schools were classified as (1) classical, professional, and technical, and (2) other. The "other" included (a) day and boarding schools and (b) parochial and charity. According to the superintendent of the Census, the "not public" schools of 1870 were as a group comparable to those of 1860.

TABLE 1
EDUCATIONAL ENROLMENT IN 1870, BY STATES

State	PERCENTAGE OF FREE POPULATION ENROLLED				PERCENTAGE THAT NUMBER ENROLLED WAS OF TOTAL POPULATION, 5-15 YEARS OF AGE										PERCENTAGE OF TOTAL ENROLMENT ENROLLED IN PUBLIC SCHOOLS	
	All Types of Schools		Public Schools		Free Population					White Population						
					All Types of Schools		Public Schools		All Types of Schools		Public Schools					
	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860		
Alabama.....	7.6	— 6.5	6.7	— 5.0	28.8	— 19.8	25.5	— 14.7	— 14.7	53.2	4.4	47.2	6.8	88.7	6.0	
Arkansas.....	16.8	9.4	14.9	9.0	63.3	38.9	55.9	36.2	36.2	83.6	59.2	73.9	54.2	88.4	7.8	
California.....	15.3	7.8	13.5	6.9	74.9	5.9	66.2	6.1	6.1	77.9	8.3	68.8	8.2	88.3	1.1	
Connecticut.....	18.3	— 1.7	16.5	— 1.4	91.3	— 9.8	81.9	— 8.7	— 8.7	92.8	— 10.4	83.2	— 9.2	89.7	.2	
Delaware.....	15.7	3.2	13.5	2.9	62.0	12.7	53.3	11.3	11.3	76.1	14.7	64.5	12.2	86.0	.9	
Florida.....	7.8	.5	5.4	2.8	28.4	— .9	19.6	10.5	10.5	56.0	26.4	38.7	29.5	69.1	37.9	
Georgia.....	5.6	— 6.2	.9	— 8.5	20.4	— 21.2	3.4	— 29.7	— 29.7	38.6	— 3.2	6.5	— 26.8	16.9	— 62.7	
Illinois.....	30.2	4.0	26.7	1.4	116.0	11.9	102.4	2.1	2.1	117.1	12.6	103.4	2.6	88.3	— 8.1	
Indiana.....	27.6	4.0	26.5	4.8	102.6	15.4	98.5	18.3	18.3	103.9	16.0	99.8	18.9	96.0	4.0	
Iowa.....	18.2	— 7.3	17.2	— 7.3	67.9	28.9	64.3	— 29.1	— 29.1	68.2	— 28.8	64.5	— 29.0	94.6	— 1.8	
Kansas.....	16.4	.....	15.9	.....	67.4	.....	65.4	.....	.....	71.2	.....	69.1	.....	96.9	.....
Kentucky.....	18.6	— .3	16.5	— .3	67.5	— 1.9	60.1	— 1.4	— 1.4	81.7	11.6	72.8	10.6	89.0	.4	
Louisiana.....	8.3	— 3.6	3.6	— 4.9	33.3	— 15.2	14.3	— 20.3	— 20.3	64.5	13.6	27.7	— 8.6	42.9	— 28.8	
Maine.....	25.9	— 5.2	24.4	— 5.3	120.0	— 15.2	112.7	— 17.5	— 17.5	120.4	— 15.1	113.1	— 16.4	93.9	— 1.7	
Maryland.....	13.8	6.9	10.7	4.7	55.5	27.3	43.0	18.5	18.5	72.3	39.4	56.0	27.4	77.5	— 9.6	

TABLE 1—Continued

STATE	PERCENTAGE OF FREE POPULATION ENROLLED				PERCENTAGE THAT NUMBER ENROLLED WAS OF TOTAL POPULATION, 5-15 YEARS OF AGE										PERCENTAGE OF TOTAL ENROL- MENT ENROLLED IN PUBLIC SCHOOLS	
	All Types of Schools		Public Schools		Free Population				White Population				1870	Gain 1870 over 1860		
					All Types of Schools		Public Schools		All Types of Schools		Public Schools					
1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860			
Massachusetts.....	18.5	.4	16.6	— .2	93.5	1.8	84.0	— 1.2	94.2	1.8	84.7	— 1.2	89.9	— 3.0		
Michigan.....	22.5	— 5.9	21.5	— 5.4	92.8	— 26.0	88.7	— 23.7	94.5	— 25.5	90.3	— 23.3	95.6	.9		
Minnesota.....	24.4	5.2	23.5	5.4	90.6	4.8	87.4	14.9	90.9	5.0	87.6	6.8	90.4	2.4		
Mississippi.....	5.2	— 6.0	.....	— 8.7	19.6	— 19.6	.....	— 30.5	43.1	3.9	.....	— 30.5	.....	— 77.8
Missouri.....	21.5	2.7	18.6	2.1	79.3	8.4	68.6	6.3	85.5	14.4	73.0	10.5	86.5	— 1.3		
Nebraska.....	14.3	.....	13.9	.....	62.1	.....	60.1	.....	62.5	.....	60.5	.....	96.8	.....	
Nevada.....	5.6	.....	4.4	.....	53.5	.....	41.9	.....	54.4	.....	42.5	.....	78.2	.....	
New Hampshire.....	20.3	— 5.0	18.7	— 2.9	107.8	— 19.3	99.0	— 9.8	107.8	— 19.5	99.0	— 10.0	91.9	6.3		
New Jersey.....	14.3	— 4.1	8.8	— 7.6	61.9	— 18.5	38.2	— 33.3	64.0	— 19.9	39.5	— 35.1	61.7	— 27.3		
New York.....	19.7	— .6	16.4	— 1.6	89.1	— 2.3	74.4	— 6.6	90.0	— 2.5	75.1	— 6.8	83.4	— 5.2		
North Carolina.....	6.1	— 12.0	3.9	— 12.0	22.7	— 44.4	14.7	— 44.2	36.9	— 33.7	23.8	— 38.1	64.5	— 23.2		
Ohio.....	29.7	1.8	27.7	2.5	117.9	9.2	110.0	11.5	120.6	10.1	112.5	12.3	93.3	2.7		
Oregon.....	35.8	16.2	32.8	17.3	234.0	152.2	214.1	149.1	237.9	155.9	217.7	155.5	91.5	12.0		
Pennsylvania.....	23.1	2.4	21.2	1.7	95.0	11.8	87.3	9.2	96.5	11.7	88.7	17.5	91.9	— 2.0		
Rhode Island.....	15.0	— 1.6	12.5	— 2.1	76.0	— 5.5	63.5	— 8.5	77.5	— 5.8	64.8	— 8.9	83.6	— 4.8		

TABLE 1—Continued

STATE	PERCENTAGE OF FREE POPULATION ENROLLED				PERCENTAGE THAT NUMBER ENROLLED WAS OF TOTAL POPULATION, 5-15 YEARS OF AGE										PERCENTAGE OF TOTAL ENROL- MENT ENROLLED IN PUBLIC SCHOOLS	
	Public Schools				Free Population				White Population				Public Schools		Gain 1870 over 1860	
	All Types of Schools		Public Schools		All Types of Schools		Public Schools		All Types of Schools		Public Schools					
	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860				
South Carolina..	5.4	— 4.7	4.4	— 2.5	20.4	— 17.1	16.8	— 8.8	51.7	12.9	42.4	15.9	82.0	13.8		
Tennessee.....	10.0	— 8.9	6.6	— 10.0	36.9	— 30.9	24.3	— 35.4	68.4	— 18.4	33.0	— 27.3	65.9	— 22.2		
Texas.....	2.8	— 7.4	.....	— 8.2	10.1	— 27.0	.....	— 29.9	14.8	— 22.4	.....	— 29.9	.....	— 80.6
Vermont.....	19.0	— 9.2	15.8	— 9.9	90.7	— 37.9	75.0	— 42.0	90.9	— 38.1	75.2	— 41.2	82.8	— 8.2		
Virginia.....	4.9	— 4.3	.7	— 7.0	19.1	— 15.3	2.8	— 26.2	34.0	— 2.4	4.9	— 25.8	14.5	— 69.7		
West Virginia.....	23.7	.....	23.0	.....	87.0	.....	84.1	.....	90.5	.....	87.5	.....	96.7	.....	
Wisconsin.....	32.6	5.5	32.0	6.4	120.3	14.2	117.8	17.5	120.7	14.4	117.2	16.7	98.0	3.4		
United States....	18.7	— 1.2	16.2	— 1.8	75.1	— 5.9	64.8	— 8.4	87.0	4.5	75.1	0.5	86.4	— 4.1		

1870. In the latter year thirteen of the twenty-three northern and western states enrolled a higher percentage of the population in schools than did the nation as a whole. In the South the situation was different. The emancipation of the slaves had resulted in making the entire population free. The potential educational burden was greatly increased in the former slave states: in 1870 the Negro population exceeded the white in three states; it constituted from 60 to 90 per cent of the white population in five other states; it was from 25 to 50 per cent in Arkansas, Maryland, Tennessee, and Texas; and it equaled 19 and 7 per cent of the white population in Kentucky and Missouri, respectively. Under the circumstances it is not surprising that of the former slave states, Missouri alone exceeded and only two others, Arkansas and Kentucky, approximated the national average in 1870. It is even less surprising that the percentage of the free population enrolled in schools in all southern states except Arkansas, Maryland, and Missouri declined during the ten-year period.

Percentage of the free population enrolled in public schools.—Similar trends are to be observed with respect to enrolment in public schools.¹ For the United States as a whole, the percentage of the population enrolled in public schools declined from 18.0 in 1860 to 16.2 in 1870. The loss was greater in the South. Of the twenty states showing decreases, however, ten were northern states: Connecticut, Iowa, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

Percentage of the free population from five to fifteen years of age enrolled.—Children from five to fifteen years of age are not taken as constituting the population of school age, but their number is assumed to be a fair index of that population. In 1870 the number of children enrolled in all types of schools equaled 75.1 per cent of the population, 5-15 years of age—a decrease of 5.9 from the per-

¹ In 1870 the number of public schools in all the states (territories omitted), as compiled from figures presented in the Census for each state, was made up of normal schools, 120; high schools, 1,026; grammar schools, 1,957; grammar and graded common, 601; graded common, 8,439; ungraded common, 104,905; graded and ungraded common (not distinguished), 7,388. The total number listed was 124,436. Many of these schools were supported in part by tuition charges.

centage for 1860, which was based on free children only.¹ Although the percentages for three former slave states increased during the decade, Missouri alone exceeded the national average in 1870. States outside the South, with few exceptions, exceeded the national average. Several, however, enrolled smaller percentages of children in the public schools in 1870 than in 1860.

The percentage that the number of school children enrolled in public schools was of the total number of free children from five to fifteen years of age decreased from 73.2 in 1860 to 64.8 in 1870. Of the former slave states, only Missouri exceeded the national average in 1870. The poor showing of the southern states may be attributed in part to the greatly increased number of *free* children upon which the percentages for 1870 were based. If only white children are considered, the South's record appears more impressive.

Percentage of the white population from five to fifteen years enrolled.—The percentage that the number of children (white and Negro) enrolled in all types of schools was of the total number of white children from five to fifteen years of age increased from 82.5 in 1860 to 87.0 in 1870. In spite of the fact that the percentages for nine southern states increased over the ten-year period, all were below the percentage for the nation as a whole in 1870. The percentages for a number of northern states decreased, but probably the greatest losses, particularly those in New England, resulted in large measure from counting fewer duplicate enrolments in 1870 than at the preceding census date.² Percentages for children enrolled in public schools indicate somewhat similar trends. Percentages based on the white population from five to fifteen years of age are of little value in evaluating the adequacy of educational provisions in the sections and states of the nation. They do indicate, however, that education in the South was not totally neglected, even during the darkest days of Reconstruction. The South was enrolling more children than ever

¹ The word "free" is used to designate the entire population, white and Negro, in 1870. It is used to distinguish the slave from the non-slave in 1860.

² Duplicate enrolments (winter and summer schools, public and private schools) may vitiate comparisons among certain states. The generalizations growing out of this study, however, would not be seriously affected if corrections of any reasonable size were made in the attendance figures.

before, but it had failed to increase its enrolment in keeping with its increased burden of colored children.

Percentage of the total enrolment in public schools.—The percentage that the enrolment in public schools was of the enrolment in all types of schools decreased for the United States from 90.5 in 1860 to 86.4 in 1870. The decrease must be attributed largely to the failure of "public" schools in the South to regain quickly their pre-war popularity. Only four former slave states exceeded the national average in 1870, and only five enrolled a larger percentage of their school population in public schools than had been the case ten years earlier. Too much significance must not be attached to these percentages. They reflect the situation as it was in 1869 or 1870, but conditions were changing rapidly. Furthermore, the passage of a public-school law in a state could alter the "public" or "private" classification of existing schools without materially changing their nature or, for that matter, their means of support.¹ Percentages for states outside the South are perhaps more nearly comparable with those derived from the statistics of 1860.

¹ Note that no public schools are reported for Mississippi. "The public-school law in Mississippi was passed in June, 1870. The public funds given to the private schools [earlier] would seem to be on account of the tuition of indigent pupils under the provisions of the law relative to the Chickasaw school-fund."—*The Statistics of the Population of the United States . . . Compiled from Original Returns of the Ninth Census, (June 1, 1870)*, p. 465.

[To be concluded]

TEACHERS' OPINIONS ON THE TEACHING OF CONSERVATION IN THE ELEMENTARY SCHOOL

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*

ONE hundred and twenty teachers in Grades I-VI in Zanesville think that the most important phases of conservation for their pupils are, in order: (1) learning to conserve personal belongings, such as clothing, books, paper, pencils, toys, etc.; (2) learning the real meaning of conservation, that is, use without waste; (3) learning how conservation benefits each pupil; (4) studying the interdependence of man and birds; (5) learning to observe minutely; and (6) studying the importance of topsoil.

These six topics or objectives decrease from first to last in uniformity and strength among teachers' opinions. The first two were rated first and second by teachers in every grade. The next four topics showed some variation in their placement by teachers in different grades. The six objectives listed were chosen from a list of twenty-five submitted to the teachers for rating.

The teachers making these selections had been introducing conservation education into the curriculum over a period of two and a half years. The emphasis given to this subject had varied widely among individual instructors, depending to some extent on the amount of interest, information, and ability reposing in each. Approximately one teacher in five had had special training in conservation, but the others depended on their own reading and observation. Many had had background training in biology, geology, geography, chemistry, health, economics, sociology, etc., which enabled them to assimilate quickly the conservation idea and viewpoint.

First-grade teachers listed their choices in exactly the order given above. Second-grade teachers omitted the topic on topsoil and in fifth place chose the objective: to develop in the coming generation

an attitude which will encourage the conservation of America's resources. This objective was also listed by fourth-grade teachers, but not by teachers of other levels.

Third-grade teachers also omitted topsoil and suggested that instruction in the need for forest conservation might be started on that level, giving this objective fifth place in the list. Otherwise their choices followed the placement already listed.

Fourth-grade teachers expanded the number of topics and objectives rather sharply. This fact indicates a lack of agreement on the relative importance of the topics in the curriculum at that level; or, to put it another way, these teachers rated several objectives as of more or less equal validity. They chose two additional purposes: (1) to realize the changes which have taken place since white men came to our section of the country and (2) to know what has happened to other civilizations that dissipated natural resources, especially the soil. These two objectives, together with understandings about forests, birds, and pupil benefits, tied for third choice. Fourth choice was deadlocked among these objectives: (1) to recognize and reject superstition, (2) to realize the importance of topsoil, (3) to understand how flood control conserves water and property, and (4) to develop the conservation attitude.

Fifth-grade teachers chose these objectives, in order: (1) appreciating the importance of conserving personal belongings, (2) learning what conservation means, (3) learning about the changes that have taken place since white settlement, (4) understanding the benefits of conservation to the individual pupil, (5) realizing the importance of topsoil, and (6) learning the effects of weather on resources and people. The last named is a new topic, not mentioned for lower levels.

Grade VI shows another expansion of topics and diversity of opinion. In addition to most of the topics named for other grades, these teachers added the following objectives: (1) to learn the basic need for water conservation; (2) to learn how conservation benefits city, state, and nation; and (3) to understand how the nutritional value of food depends on topsoil. The last two were ninth and tenth choices.

Equally as important as the data given is the list of objectives and topics which were rejected by the teachers at all levels. Here they are: (1) to learn the scientific method of inquiry; (2) to learn how to perform and record experiments; (3) to reserve opinion until all the facts are known; (4) to question the opinions of the unqualified and to respect the opinions of good authority; (5) to learn the economic and recreational values of mammals, insects, fish, mollusks, worms, etc.; (6) to understand the slowness of formation of soil, metals, coal, and oil, and the impracticability of replacement; (7) to fortify the instinctive concern for the welfare of posterity with regard to resource supplies; (8) to know what governmental and private agencies are doing to promote conservation; and (9) to realize the social and economic importance of erosion.

CONCLUSIONS

The first four rejected objectives deal with the scientific method. The only phase of this method given a place was learning to observe minutely, which was indorsed in Grades I, II, III, and VI. While the importance of knowing the values of bird life was accepted by all except fifth-grade teachers, knowledge of mammals, fish, insects, etc., was rejected uniformly. Perhaps the word "economic" caused the rejection. There seems to be a definite aversion to teaching about minerals at these levels.

Any attempt to deal with the social effects of waste is considered beyond the fifth-grade level, except where these effects can be explained in terms of the individual pupil.

The accepted objectives deal with the pupil himself or with things which he can easily observe, such as birds, trees, weather, and topsoil. Personal experience and objectivity are, then, the criteria revealed, consciously or unconsciously, by the survey. The only quarrel that the writer has with the results concerns the rejection of instruction about mammals, fish, insects, mollusks, worms, etc.; for this information fits very well into the criteria at certain periods during the year. It may be that a different wording of the objective would have changed the result. Certain it is that children are interested in these forms of life, as a number of studies have shown.

Sensory perception as the basis for gathering information at first hand is indorsed. The data or experiences are then emotionalized by direct application to the pupil's life. For example, the loss of topsoil reduces yields and thus raises prices of foods, or the loss of topsoil reduces the mineral and the vitamin content of food and thus affects health, or birds eat destructive insects and thus help us have better gardens, or a shirt carelessly torn must soon be replaced so that the new toy cannot be bought and enjoyed.

Further teaching experiences in this field, more specialized training, and experimentation may change many of the opinions revealed by this survey. Conservation education is a new learning area, and it must evolve its own techniques and subject matter by a process of trial and error.

A METHOD OF SELF-INSTRUCTION FOR LEARNING THE EASIER ADDITION AND SUBTRACTION COMBINATIONS IN GRADE I

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THE teaching of arithmetic in the primary grades has been the center of much discussion. Recommendations concerning the subject have not been in agreement. Some authorities have advocated the use of isolated, repetitive drill. Others have proposed that number be developed in a systematic manner as a series of interrelated ideas.

In the former method the pupil, from the beginning, is directed to depend on the teacher as he gives his attention to each new number fact. Since each new response is taught directly to the pupil, he does not develop any method of study that can be applied in examining other unfamiliar number situations. As a result the pupil resorts to a memorization of the number facts which are dictated to him.

On the other hand, in the latter method the pupil learns to work out for himself the responses to new number situations. He is introduced to the idea of number as a series of interrelated ideas to be developed in a systematic manner. It may be said that by this method he learns a mode of thinking to be used in studying new number groups. If his learning is undertaken by this procedure, his responses do not, in the beginning, come easily. They are learned by slow, roundabout methods which place the understanding of a number idea above the ability to give the mere automatic response to an isolated fact. Thus he may learn more slowly than a pupil taught by the drill method, but his need for direction from the teacher grows less and less. Increasingly he depends on his own resourcefulness.

If first-grade pupils can be taught a systematic method of self-instruction, much of the repetitive drill characteristic of the first method described would be unnecessary. It is known that pupils in

Grades II and III can learn such methods. In 1938 Gump² reported that forty-four second-grade pupils learned a method of self-instruction which they used effectively in teaching themselves the thirty-six addition combinations with sums from eleven to eighteen. The next year Givens² found that fifty-four third-grade pupils were successful in learning the thirty-nine multiplication facts with products from twenty-one to eighty-one by a method of self-instruction. Thiele,³ in a recent study conducted in the public schools of Detroit, Michigan, determined the effectiveness of two methods of learning the one hundred addition combinations. Two comparable groups were selected from Grade II. One group was taught by the so-called "generalization method" and the other by the so-called "drill method." The study involved the planning of a supervisory program in which instructional procedures were developed and administered in the teaching of each experimental group. The findings of the study indicate that pupils were taught to form generalizations and that the achievement of the "generalization" group was superior to that of the "drill" group.

The data from the studies mentioned above present evidence to the effect that pupils in the later primary grades can learn arithmetic by methods of self-instruction. There is some question whether first-grade pupils can be taught such methods successfully. Therefore the study herein reported was undertaken in order to determine the effectiveness of teaching a method of self-instruction to first-grade pupils.

PROBLEM AND EXTENT OF THE STUDY

The study deals with the responses of seventy-two first-grade pupils to the easier addition and subtraction combinations—the

¹ Larney R. Gump, "Teaching a Method of Self-instruction to Second-Grade Pupils in the Thirty-six More Difficult Additions." Unpublished Master's thesis, West Virginia University, 1938.

² Merton V. Givens, "Using a Method of Self-instruction in the Third Grade in Learning the Thirty-nine More Difficult Multiplications." Unpublished Master's thesis, West Virginia University, 1939.

³ C. L. Thiele, *The Contribution of Generalization to the Learning of the Addition Facts*. Teachers College Contributions to Education, No. 763. New York: Teachers College, Columbia University, 1938.

addition facts with sums of ten or less and the corresponding subtraction facts.

The purpose of the study was to determine whether first-grade pupils can learn a method of self-instruction well enough to teach themselves the easier combinations in addition and subtraction. Involved in the conduct of the study were the problems of developing a teaching procedure and of planning a supervisory program. Moreover, there was involved, throughout, the administrative problem of maintaining a balanced instructional program.

This study was conducted between November 1, 1939, and May 20, 1940. This period was for the duration of six and a half months or 131 days of regular school time.

Seventy-two first-grade pupils enrolled in eleven one-teacher and in four two-teacher schools of Berkeley County, West Virginia, were taught according to the procedure described below. The largest number of pupils in any one school was thirteen, and the smallest number was one. In age the pupils ranged from five years and six months to thirteen years. The mean age was six years and ten months on November 1, 1939. The mean number of days in school attendance during the period of experimentation was 109. On the average each pupil was given class instruction for approximately twenty minutes each day.

THE TEACHING PROCEDURE

A definite plan of instruction was followed by the teachers of the experimental classes. The task of preparing the teaching procedure was simplified by the fact that it was determined to follow the procedure devised by Wheat.¹ Therefore the teaching program is based on the assumption that the idea of number is the idea of the group. Ideas of groups are developed through the study of groups. The study of groups may be either incidental or systematic. The principle underlying the methods of study which were presented to the pupils is the principle that systematic methods are to be preferred to incidental procedures.

Three methods of systematic study are possible: (1) counting

¹ Harry Grove Wheat, *The Psychology and Teaching of Arithmetic*, pp. 160-210. Boston: D. C. Heath & Co., 1937.

groups, (2) comparing groups, and (3) taking groups apart and putting the parts together. The general character of the three methods is described herein.

Counting groups.—Learning to count involves and proceeds along the following four steps: (1) training in orderly use of the number names; (2) training in the discrimination of objects counted; (3) training in relating the number names and the discriminated objects, that is, practice in giving to each object in turn the number name that comes in orderly sequence; (4) training in grouping, or practice in giving attention to the group as a whole, as well as unit by unit.

After pupils had learned the names of the numbers in serial order, objects were used to develop the idea of number as it is related to the process of counting. Through practice in observing and handling objects, they gained ideas about groups which eventually led to the full realization of the ideas to be understood in performing meaningful counting.

Comparing groups.—When the pupils were ready for the second method of studying groups, they had learned much about certain groups by counting the units which composed them and by observing the groups as wholes. They knew that seven, for example, is larger than anything before it and that it is smaller than anything following it in the serial order. There is, however, much confusion in the minds of pupils when they attempt to think how a group of seven is related with exactness to any other group. If their ideas of number are to be clarified and enlarged and are to become interrelated, situations must be presented in which existing ideas can be used as the basis of study in more complex experiences. A study of groups by comparison provides a method of extending the simple number ideas of groups.

The experiences of making comparisons involved the matching of equal and unequal groups. These exercises provided learning situations which aided the pupils to develop more exact ideas about the equality or inequality between any two groups. Thus the teacher directed the attention of the pupils to the process of matching a certain number of pencils with a like or unlike number of books. They determined the equality or inequality between the groups matched. To make the observation, they had to count first the one

group, then the other, and, finally, the excess of one group over the other. In order that the study be systematic, the teacher assisted the pupils by asking them questions, which required them to give attention to each essential phase of the comparison.

Taking groups apart and putting the parts together.—When a certain number of objects were to be taken from a group, the objects to be removed were counted. The number of objects which remained had to be counted to determine the size of the new group. Small groups rearranged into the original group provided an experience in counting in which a relation between the taking-apart process and the putting-together process was developed.

The steps of progress in the study of groups through analysis and synthesis are described as follows:

1. Attention to arrangement of objects when the teacher makes and describes the arrangement.
2. Attention to arrangement of objects when the pupils make and describe the arrangement.
3. Attention to arrangement of objects when the pupils do not actually make, but *think*, the arrangements, and then describe them.
4. Attention to arrangement when the objects are present only in imagination.
5. Attention to arrangement when no objects are present, employing the language of number to describe the arrangement, which is now entirely a matter of thought.¹

The succeeding paragraphs contain an explanation of the teaching technique employed during each step of progress.

Step 1.—In the introductory step the teacher conducted demonstrations which used the method of study to enlarge the pupils' ideas with regard to the smaller groups within a larger group. In brief, the instructor directed the pupils in discovering a new aid to learning through use of the method of study observed.

The sample demonstration given here is illustrative of the plan followed in presenting the method of studying groups. The procedure may be indicated briefly as follows:

- a) "How many blocks are on the table?" The pupils answered, after determining the number by counting, "Six."
- b) "I will take two blocks away from the six blocks and put them over here."

¹ Harry Grove Wheat, *op. cit.*, p. 194.

The teacher laid the two blocks in a place which set them apart from the original group. The pupils were reminded to watch the act of taking the two blocks away.

c) "How many blocks have I left here?" The teacher pointed to the position of the original group. The pupils determined the number by observing, counting silently, or pointing to and counting the blocks left.

d) This arrangement was repeated again and again. Attention each time was directed to the original group of six blocks, to the two blocks taken away, and then to the remaining group of four blocks. When the pupils understood what was involved in the three foregoing stages, they were directed to engage in further activities.

e) In this period of the study the pupils were encouraged one at a time to perform the arrangements. Each pupil was led to tell step by step what he did.

f) The process was continued until each pupil was familiar with the result of the act of taking two blocks from six blocks. Demonstrations of a like nature were repeated until it was proved that the method of study was understood.

Following a similar detailed procedure, the attention of the pupils was directed to the group of two, then four, and finally to the counting of the two and four together to make the original group of six.

Step 2.—At this point the pupils were allowed to practice the method demonstrated in the first step. They were given counters to use independently to make the arrangements described in the oral and written language of the teacher. Only groups whose possible arrangements had been illustrated according to the first step were used in the second step. The aim of the procedure at this stage of the learning was to give practice in using the proposed method of study.

Step 3.—The activity in this learning situation provided opportunities for the pupils to *think* the arrangements of objects without actually making the arrangements. Blocks, books, chairs, and pupils, for example, were arranged in the thinking of the pupils. The language of number which applied to a particular operation was then used to describe it.

Step 4.—The objects in question were now present only in the imagination of the pupils. Practice was given in using the generalizations formed. Verbal statements describing familiar situations were used to promote thinking as various arrangements were made.

Step 5.—The last step in the method of learning provided practice when the written language of number was used to describe and sug-

gest the arrangement. The activity was developed entirely as one of thinking. All previous activities should have supplied experiences which clarified and enlarged the number ideas of the pupils to the extent that the training of this period did not demand or encourage memorization of the number combinations as in the usual drill exercises.

THE SUPERVISORY PROGRAM

The teaching procedure was administered under the guidance of the supervisory program herein described. At the beginning of the 1939-40 school term, a number of group conferences with the teachers who were to co-operate in the investigation were planned. These meetings occurred monthly, the first one being held in September, 1939. In this meeting and in the one which followed, a background for the teaching to be done was presented. The five other meetings were concerned with the discussion of the techniques to be used in the study.

While the experiment was in operation, progress was checked by visits to the classroom. At the conclusion of each observation a conference was held with the teacher. Certain steps in the teacher's presentation were discussed, with the thought of clarifying any phase of the work which seemed confusing to either teacher or pupils. Throughout the experiment the purposes of the supervisory program were to insure the understanding of each step in the teaching procedure and to maintain a balanced instructional program.

BALANCING THE INSTRUCTIONAL PROGRAM

A report of the reading program is given at this point to show that the instructional program of Grade I did not neglect or overlook this essential phase of the school's responsibility. A six-week period of training in reading readiness was planned by the use of prepared materials for beginning reading. Tests were administered before the introduction of this program, and all pupils found to be ready for formal instruction were placed in a group for the purpose of receiving advanced training. Those remaining, in many cases all pupils enrolled in a particular room, were given training to develop a desire for, and an interest in, learning to read. At the end of six weeks another test was given to determine the number of pupils ready for

instruction on a higher level. A few pupils were still unable to go beyond the stage of preparation for reading. They had to be supplied with more material of the readiness nature.

The next phase of the basal program provided for all groups to use at least two books of primer difficulty in developing meanings from written expressions. One or more books of first-reader level were used in a like manner. In this connection each pupil who made average progress during the year received class instruction in three books of preprimer level, two books of primer level, and one or more of first-reader difficulty. The minimum program used six books in the reading activities as basal materials.

At each level of the pupil's development various materials easy enough for him to read independently were available. During the course of the year's work the average first-grade pupil in the experimental schools read ten books.

EVALUATING THE EFFECTIVENESS OF THE TEACHING PROCEDURE

Two sets of measures were obtained, namely, scores on tests and teachers' observations. At the end of the instructional period, five tests were administered. Four of these tests were used to evaluate the development of number concepts; one measured word recognition in reading. A description of the tests is given in the order in which they were administered.

Test I, Subtraction, contained the forty-five combinations in which the minuends are from two to ten, inclusive. Test II, Subtraction Problems, presented orally forty-five situations involving the forty-five subtractions of Test I. Test III, Addition, contained the forty-five addition combinations whose sums range from two to ten, inclusive. Test IV presented forty-five problems, each problem containing a familiar situation, and the ideas of Test III were used to check the putting-together process. Test V was an exercise in which the ability to recognize words was measured. The Gates Primary Reading Test, Type 1, Word Recognition, Form II, was used to check this particular ability. All the tests mentioned here were administered by the writer between May 1, 1940, and May 20, 1940.

Other material of significance was gathered from the happenings within the classrooms. Teachers were asked to record anything of marked importance which gave evidence of the way in which learning developed during the course of the experiment. Many reports contained critical analyses of the value of the method of learning number.

The achievement of a large majority of the seventy-two pupils, according to the scores made on the four tests in numbers, is shown in Table 1, in which the number of pupils making perfect and nearly perfect scores on each test is indicated.

TABLE 1
NUMBER OF PUPILS MAKING PERFECT AND
NEARLY PERFECT SCORES IN SIMPLE SUB-
TRACTION AND ADDITION COMBINATIONS
AT THE END OF SIX AND A HALF MONTHS OF
INSTRUCTION

Type of Test	Number Scoring 45	Number Scoring 40-45
Subtraction:		
Combinations.....	52	63
Problems.....	47	59
Addition:		
Combinations.....	63	65
Problems.....	49	62

The effectiveness of the teaching program may be further described in terms of the achievement of the typical or composite pupil. The typical child had a chronological age of six years and ten months on November 1, 1939, and was enrolled in a one-teacher school. He was taught a method of instruction which emphasized the consideration of number as the idea of the group. He learned to count, to compare groups, and to take groups apart and put the parts together again. These learning activities developed a method of study which was used in examining groups systematically. At the end of six and a half months, he had taught himself forty-two of the forty-five easier combinations in addition and in subtraction. He was able to deal with these combinations equally as well when

they appeared in problem situations. Moreover, he had achieved by this time a reading-grade score of 2.0 on word recognition and had read ten books suitable for an average pupil of Grade I.

CONCLUSIONS

The problem of the study which has been reported was to determine whether first-grade pupils could learn a method of self-instruction well enough to teach themselves the easier addition and subtraction combinations. The pupils selected for the study were limited in number and, on the whole, were not above the average in ability.

In view of the limitations of the study, the following conclusions seem to be justified: (1) Pupils can learn a method of self-instruction well enough to teach themselves the simple number concepts during their first year in school. (2) If pupils first learn a method of study, the number ideas can be developed through its use. (3) Finally, pupils can be introduced to a systematic study of number in Grade I without detracting from, or neglecting, the one essential phase of the instructional program, which is teaching pupils to read.

SELECTED REFERENCES ON PUBLIC- SCHOOL ADMINISTRATION. I

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THE references on public-school administration herewith presented were published between November 1, 1940, and October 31, 1941. The list is necessarily restricted by limitations of space. In making the selections, the authors have been guided by the practical value of the contributions and the current interest in the problems considered. Obviously many contributions of merit, which would have been included in a more extended list, have had to be omitted.

In this article appear titles under (1) general administration, (2) state school administration, (3) city school administration, and (4) supervision. Titles classified under (5) teaching staff, (6) school finance, (7) business management, and (8) public relations will be published in the February number of this journal.

GENERAL ADMINISTRATION

1. BOSSING, NELSON L. "The Problem of Articulation between Secondary and Higher Education," *High School Journal*, XXIV (April, 1941), 157-64.
A historical treatment of the problem of articulation, emphasizing the new factors in education, such as the growth of secondary schools, the studies of individual differences, and the broader concept of education recognized by colleges themselves. These factors have emphasized the need of articulating the university with the democratically functioning secondary school.

2. EDWARDS, NEWTON (compiler and editor). *Education in a Democracy*. Charles R. Walgreen Foundation Lectures. Chicago: University of Chicago Press, 1941. Pp. xii+160.

A series of lectures by eight faculty members of the Department of Education of the University of Chicago. The functions and the responsibilities of education as a force in American life are critically examined, and an attempt is made to point the direction that education should take in carrying forward democratic ideals and in adjusting the individual to his culture.

3. FULLER, EDGAR. "Liability for Negligence of Educational Officers and Employees," *American School Board Journal*, CIII (October, 1941), 29-30.

On the basis of legal statutes and cases, a jurist presents a discussion of problems that arise after an accident has happened in connection with the public schools. This is the first of a series of articles.

4. GATJE, GEORGE H. "Co-operative Relationships in School Administration," *American School Board Journal*, CIII (September, 1941), 17-18, 91.

A consideration of the advisability of promoting democratic methods in administration by means of teacher participation in policy-forming functions.

5. HENDRICKSON, ROY F. "Organization for Public Administration," *American School Board Journal*, CII (April, 1941), 43-44.

The importance of school organization is emphasized, and an explanation is given of certain characteristics of good organization, such as delegation of definite authority and the number of assistants over whom the chief executive can exercise effective control.

6. JACOBS, JOHN E. "Democracy in School Control," *Educational Administration and Supervision*, XXVII (March, 1941), 177-94.

Gives a brief description of some of the means which presumably implement democratic administration in selected schools, analyzes the effectiveness or the ineffectiveness of these means, and considers fundamental questions pertaining to democratic administration.

7. KEMP, W. W. "Some Urgent Problems Facing School Administrators," *Educational Administration and Supervision*, XXVI (November, 1940), 561-71.

A general overview of such varied problems in school administration as the changing school population as a result of smaller families, the migration of labor, the financial hardships of the depression, the relation of the federal government to the schools, and the inequality in ability of the states to support their schools.

8. KERR, FLORENCE. "Redirection of W.P.A. Education Program To Meet National Defense Needs," *American School Board Journal*, CIII (October, 1941), 41, 79-80.

Educational programs for aliens, illiterate soldiers, and preschool children in families with low income are described by the assistant commissioner of the Work Projects Administration.

9. MEADE, RAYMOND D. "School Co-operation with Governmental Agencies," *American School Board Journal*, CIII (October, 1941), 30-32.

Tells how Bloom Township High School, Chicago Heights, Illinois, has taken advantage of opportunities for co-operation with the new federal and state agencies in the field of education.

10. MOEHLMAN, ARTHUR B. "Federal Controls Endanger Community Schools," *Nation's Schools*, XXVII (March, 1941), 23-24.

Argues that certain federal agencies being operated as emergency enterprises may become permanently entrenched by virtue of the authority and financial support provided by the federal government and that these agencies may eventually create parallel systems of education and develop unsavory controls over state school programs.

11. REEDER, WARD G. *The Fundamentals of Public School Administration*. New York: Macmillan Co., 1941 (revised and enlarged). Pp. xvi+798.

A general treatise involving revision and considerable expansion of the author's earlier textbook of the same title.

12. TYLER, RALPH W. "Educational Adjustments Necessitated by Changing Ideological Concepts," *Elementary School Journal*, XLII (September, 1941), 17-26.

Anticipates adjustments in educational policies and programs which will be required by changing concepts with respect to such matters as the relation of the school to the community, national unity in the educational profession, the implications of the retarded growth of population, the class structure and pressure-group organization of our society, the nature of public opinion, and the educational significance of the major ideals of the American people.

13. WAHLQUIST, JOHN T. "Conflicting Views of School Administration and Supervision," *Educational Administration and Supervision*, XXVII (February, 1941), 81-98.

Considers three current philosophies of school administration and supervision, namely, those exemplified in the traditional school, in progressivism, and in realism.

STATE SCHOOL ADMINISTRATION¹

14. BEST, EMERSON C., and HUTSON, PERCIVAL W. "The Attitudes of a Rural Community toward Secondary Education," *Educational Administration and Supervision*, XXVII (January, 1941), 1-11.

A study of the educational attitudes of one hundred citizens in the rural community of a township in western Pennsylvania. The results embodied in the various published tables manifest the conflict of self-interested individuals in matters of school expense, as well as the need for building community attitudes favorable to educational institutions. Why rural consolidation progresses so slowly is explained.

15. BUTTERWORTH, JULIAN E. "Sound Policy in the Administration of Pupil Transportation," *American School Board Journal*, CII (June, 1941), 27-28, 85.

¹ See also Item 478 (Lange) in the list of selected references appearing in the September, 1941, number of the *Elementary School Journal* and Item 38 (Weltzin) in the January, 1942, number of the *School Review*.

The solution of local transportation problems, together with the evaluation and financing of the program, is considered in this treatment, with some tentative conclusions concerning the relative responsibilities of the state and the locality.

16. CHAMBERS, M. M. "At the Grass Roots in School Administration," *American School Board Journal*, CI (November, 1940), 17-18, 94.

A presentation of the inequalities that arise in school administration because of the multiplicity of local units. Advocates an administrative unit including ten to twenty thousand pupils.

17. CHAMBERS, M. M. "New Laws Affecting Teachers," *Nation's Schools* XXVIII (July, 1941), 62, 64.

Explains important provisions of recent legislation affecting teachers' contracts.

18. COVERT, TIMON. *Financing of Schools as a Function of State Departments of Education*. Studies of State Departments of Education, Monograph No. 3. United States Office of Education Bulletin No. 6, 1940. Pp. vi+34.

A review of the services of state departments of education in relation to the apportionment of state aid and to such local school problems as budgeting, salary schedules, and pupil transportation.

19. DAVIS, HAZEL. "Why a Minimum Salary Law?" *Nation's Schools*, XXVII (January, 1941), 60, 62.

Notes significant features of recent minimum-salary legislation and explains the advantages of such laws to the schools of the state, especially schools in rural areas.

20. GRACE, ALONZO G. "Principles of State School Administration," *American School Board Journal*, CI (December, 1940), 19-20.

The nine principles of administration underlying the organization of the Connecticut State Department of Education are given by the commissioner of education.

21. KELLY, GLENN K. "Enlisting School Officers in the Solution of Education Problems," *American School Board Journal*, CII (March, 1941), 58, 60.

The report of an investigation concerning state school board associations, covering all states except Delaware. Extent of such associations and their support and organization were some of the problems investigated.

22. MARTENS, ELISE H. *State Supervisory Programs for the Education of Exceptional Children*. Studies of State Departments of Education, Monograph No. 10. United States Office of Education Bulletin No. 6, 1940. Pp. x+92.

A survey of laws and provisions pertaining to the education of physically and mentally handicapped children and of gifted children in both elementary- and high-school grades.

23. MORT, PAUL R., and CORNELL, FRANCIS G. *American Schools in Transition*. New York: Teachers College, Columbia University, 1941. Pp. xxviii+546.

On the basis of an extended study of the school system of the state of Pennsylvania, the authors describe certain long-time changes in the public-school system during the past forty years and interpret these changes in terms of the adjustment or the adaptation of schools to changing conditions and needs.

CITY SCHOOL ADMINISTRATION¹

24. ANDERSON, HOMER W. "A Logical Administrative Setup," *Nation's Schools*, XXVII (February, 1941), 31-32.

Describes the administrative organization of the Instruction Department recently adopted for the St. Louis school system.

25. BRANT, RALPH E. "A Loan Plan for Textbooks," *Nation's Schools*, XXVII (May, 1941), 30.

Describes the practical rental plan for textbooks used in the small community of Vassar, Michigan. The rental charge is one dollar per pupil for the complete set of books that he needs, and the fee is set aside for the textbook fund in order to replenish the stock as books need replacing.

26. CARPENTER, W. W., CAPPS, A. G., and TOWNSEND, L. G. "Democratic Procedures in Developing a Code of Rules and Regulations," *American School Board Journal*, CII (April, 1941), 25-26.

Asserts the need of a logically classified set of rules dividing the powers and duties of the school board, superintendent, principal, and teacher. Recommends the construction of such rules by representative committees of all groups concerned.

27. ENGELHARDT, N. L., JR. "Child Migration in a City," *American School Board Journal*, CII (February, 1941), 51, 93.

This statistical study is a by-product of the Strayer survey of the public schools of Pittsburgh and is closely related to the administrative problem of forecasting population change. Concludes that employment conditions determined migration of families and that such migration was largely to and from the city, not within the city.

28. FROSTIC, RALPH F. "Changing from a K-6-3-3 to a K-6-4-4 Organization," *Nation's Schools*, XXVII (April, 1941), 30-32.

A statistical analysis on theoretical grounds, with the aim of promoting instructional space efficiency. The theory is applied to a metropolitan school district with excellent results.

¹ See also Items 443 (Anfinson) and 445 (Cook) in the list of selected references appearing in the September, 1941, number of the *Elementary School Journal* and Item 548 (Jacobson and Reavis) in the November, 1941, number of the *School Review*.

29. HILL, HENRY H., and MAUCKER, WILLIAM. "Types of Public School Administrative Organization in Cities over 200,000," *American School Board Journal*, CIII (July, 1941), 17-19.

Presents pertinent tables and a summary of recent investigations of administrative and school-board organization in forty-one cities.

30. LOOMIS, ARTHUR K. "Democratic School Administration in Practice," *Elementary School Journal*, XLI (February, 1941), 417-22.

Presents a description of the Shaker Heights, Ohio, "superintendent's council," which is composed of the officers and the building representatives of the teachers' association and all the administrative officers of the schools. The council functions in deciding on policy recommendations to the board and in determining all policies delegated by the board. Lists twelve principles which should guide democratic school administration.

31. PARKS, W. B. "The Relationship That Should Exist between Board of Education and Superintendent," *American School Board Journal*, CII (June, 1941), 41-42.

A member of a board of education restates the position of the superintendent as a leader responsible to the sanction of his board.

32. RELLER, THEODORE L. "The Superintendent of Schools and the National Crisis," *American School Board Journal*, CII (February, 1941), 31-32.

Forecasts the nature of the difficulties to be met by the superintendent of city schools in the national crisis and indicates the areas in which his leadership responsibilities will be greatest.

33. *Salaries of City School Employees, 1940-41*. Research Bulletin of the National Education Association, Vol. XIX, No. 2. Washington: Research Division of the National Education Association, 1941. Pp. 67-96.

Analyzes trends in salaries of teachers and other school employees in the period 1930-40.

34. SAUNDERS, CARLETON M. *Promotion or Failure for the Elementary School Pupil?* New York: Teachers College, Columbia University, 1941. Pp. viii+78.

Presents an analysis of the causes of nonpromotion, as suggested by research studies, survey reports, the literature on mental hygiene, and the philosophy of education.

35. STENQUIST, JOHN L. "How Baltimore Handles Pupil Promotions," *Nation's Schools*, XXVII (January, 1941), 41-44.

Adjustment to individual differences and needs has led Baltimore to move steadily toward greater flexibility in organization and in promotions. The four factors that affect the successful operation of a system of promotions based on properly arranged grade standards are (1) pupil classification according to

needs and abilities, (2) a flexible curriculum to meet individual needs, (3) a high quality of instructional efficiency, and (4) the educational characteristics of each pupil.

36. STERK, CLARA K., and PURDY, BEATRICE. "A Plan for Teacher Participation in the Selection of Textbooks," *Elementary School Journal*, XLI (May, 1941), 658-64.

A description of the Milwaukee plan of evaluating and adopting textbooks for use in the schools.

SUPERVISION¹

37. BADGLEY, H. J. "A Plan for County Supervision," *School Executive*, LX (February, 1941), 26-27.

Presents an outline of a plan, including the survey of needs and the selection of objectives, which can be readily adapted to most county school situations.

38. CAMPBELL, ROALD F. "Evaluation and the Rating of Teachers," *Elementary School Journal*, XLI (May, 1941), 671-76.

Presents a check list of seven behavior characteristics of pupils and teachers which may be used in rating teachers.

39. CASWELL, HOLLIS L. "How Shall Supervision Be Advanced?" *Educational Method*, XXI (October, 1941), 2-8.

Holds that, in a modern educational program, there are three services in particular which supervision should render: (1) It should contribute to over-all planning and co-ordination of the instructional program. (2) It should provide specialized resources upon which teachers may draw to meet the widely varied demands for competence made by classroom work. (3) It should foster the in-service education of teachers.

40. COREY, STEPHEN M. "Evaluating Technical Teaching Competence," *Elementary School Journal*, XLI (April, 1941), 577-86.

Stresses the importance of evaluating teaching competence more largely in terms of a ability to learn about children, to describe desirable outcomes of instruction, to stimulate pupils' curiosity, and to provide variety of learning experiences.

41. DURELL, THOMAS J. "The New Jersey Helping Teachers," *Educational Method*, XXI (October, 1941), 9-13.

Describes the activities of the fifty-two "helping teachers" employed by the New Jersey State Department of Education to assist county superintendents in improving the work of teachers in rural schools. The teaching in the schools supervised by the helping teachers is considered among the best in the state.

¹ See also Items 468 (Falk) and 486 (Whitelaw) in the list of selected references appearing in the September, 1941, number of the *Elementary School Journal* and Item 577 (Stoops) in the November, 1941, number of the *School Review*.

42. JACKMAN, W. C. "Devices for In-service Education of Teachers," *American School Board Journal*, CIII (September, 1941), 56, 58.
Considers the supervisor's problem in stimulating growth of teachers. A helpful chart lists various devices for in-service education.
43. McCLURE, WORTH. "Supervision—The Little Man Who Wasn't There," *American School Board Journal*, CI (December, 1940), 25-27.
Discusses the new supervisory methods of leading versus commanding and develops the principal's job as essentially that of a teacher of teachers, of parents, and of the public.
44. MOFFATT, MAURICE P. "Supervision and the Superior Teacher," *Educational Administration and Supervision*, XXVII (March, 1941), 217-20.
Proposes ten methods by which the superior teacher can be motivated and stimulated by his supervisor, and emphasizes the need for a spirit of co-operation between teacher and supervisor in initiating and carrying out this program.
45. WRIGHTSTONE, J. WAYNE. "Evaluation of Instruction," *School Executive*, LX (March, 1941), 9-10, 16.
Newer practices in elementary and secondary education have required the development of newer practices in evaluation. The formulation of curriculum objectives and the use of ready-made tests are here considered.

Educational Writings



REVIEWS AND BOOK NOTES

READING AND THE PRIMARY-SCHOOL CHILD.—Since many of the discussions of reading in the primary school seem to emphasize teaching reading for the sake of reading, it is good to find a book¹ which consistently holds the center of attention on the child and his growth and the way in which various teaching techniques may affect the young child. How this material or this procedure will affect the child and his learning to read efficiently is repeatedly brought to the attention of the reader.

The author first gives a working definition of reading for the primary school yet directs the teacher's attention to ultimate goals in reading. The definition for beginners, "Reading is (1) recognizing most of the words, (2) guessing or sounding out the others, and (3) getting meaning as the result" (p. 2), gives the teacher a rather specific guide for the major part of the reading program for these lower grades. The five phases of readiness for reading—physical readiness, school readiness, language readiness, interest readiness, perceptual readiness—are briefly treated. This discussion will help a primary-grade teacher to recognize the evidences of readiness for reading and to plan for the development of each phase as necessary for each child, and it will aid in determining when systematic instruction in reading may be begun safely.

The various methods which have been proposed for teaching primary-grade reading are briefly described and analyzed by pointing out the possible strong factors and the weaknesses of each method as it affects the learning of the child. This comparison is especially valuable to the young teacher who is inclined to believe that anything printed in a professional book is a correct procedure to follow.

Many practical devices for teachers are given, and again the author tries to indicate the type of contribution that each will make in the whole educational program for the child. If the teacher is interested in getting help on methods for beginning reading and the place of labels, word games, experience charts, action words, phonics, bulletin-board announcements, reading tests, various administrative plans for the primary school, and other problems, she will find very readable and helpful paragraphs or chapters in this book. The technical material on studies of eye-movements, which is often confusing to the young teacher, is here sanely interpreted, and the use that can be made of such studies is pointed out.

¹ Edward William Dolch, *Teaching Primary Reading*. Champaign, Illinois: Garrard Press, 1941. Pp. 308. \$2.50.

Throughout the book the author stresses that no one method is entirely adequate, that the teacher should be acquainted with many methods and techniques and then select the most appropriate for the immediate situation, and that research is still inadequate for answering all questions concerning the teaching of reading.

This publication is a definite contribution to the literature on the teaching of primary-grade reading. There are places where one wishes that the author could have gone into more detail. However, because his discussion is limited to a volume no larger than this, the book will probably be read by a much larger number of teachers and thus offer a more effective service to the children in our primary schools. It is hoped that every primary-grade teacher will soon have access to this recently published book on the teaching of reading.

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GROWTH IN SERVICE FOR PUBLIC EMPLOYEES.—School administration has developed a new emphasis on professional growth in service for the school staff; the term "training in service" is falling into disrepute as suggesting too mechanical an approach. The very title of a report on *Employee Training in the Public Service*,¹ therefore, presents a hurdle for the educator to pass, but he will find the book worth the effort. It is true that the authors of the report give less emphasis to democratic participation by employees in all phases of the training program than might have been expected if educators had written the book, but much of the discussion presents a new approach to familiar problems of educational supervision.

In most school systems the plans for growth in service do not extend to the nonteaching staff, although 195,000 nonteaching employees were employed in 1937-38 in the public schools of the United States—approximately one for every six teachers. In general government, in contrast to school administration, all employees are nonteaching employees, and the clerical and technical services are taken more seriously. This report on employee training, while by no means limited in application to the nonteaching staff, will be especially useful in working with that group.

The major study in public personnel administration, of which this report is a part, is described in the Foreword by G. Lyle Belsley, director of the Civil Service Assembly. A field staff visited twenty-two carefully selected public personnel agencies and prepared an extensive survey study for each agency. Financial

¹ *Employee Training in the Public Service*. A Report Submitted to the Civil Service Assembly by the Committee on Employee Training in the Public Service, Milton Hall (chairman). Chicago: Civil Service Assembly of the United States and Canada (1313 East Sixtieth Street), 1941. Pp. xvi+172.

assistance was given by the Spelman Fund. A number of committees were formed to prepare the topical reports based on these source materials. Milton Hall was well chosen as chairman of the Committee on Employee Training, in view of his successful experience as director of training for the Federal Farm Credit Administration.

The committee's general approach to its topic is indicated in the following list of chapter titles: "Ascertaining the Need for Training," "Instruction—Where and by Whom," "Selecting and Developing Content," "Training Methods," "Evaluation of Public Service Training," "The Central Training Unit."

Training of employees is broadly defined to include simple instructions on the job as well as formal study of the classroom type. In the committee's opinion, employee training is "the process of aiding employees to gain effectiveness in their present or future work through the development of appropriate habits of thought and action, skills, knowledge, and attitudes" (p. 2). Every person who is in charge of the work of another, from the chief executive to the supervisor of the smallest unit, has responsibilities for training. The central administration, however, must think in terms of a total training program; otherwise the training needs of some group of employees may be overlooked. A central training unit, manned by specialists, is deemed essential in large agencies.

The chapter on "Training Methods," by stating the principles of education which are basic for the training program, makes it explicit that employee training really means employee education. Among the methods and devices discussed, the sections dealing with conferences, discussions, apprenticeships, internships, and rotation of assignments may be of most direct interest in the school situation.

The educational principles of meeting individual differences and of serving the interests and needs of learners are invoked, but the committee's philosophy of training has little in common with the current educational theory that the curriculum should be made up as the pupils and teachers go along together, exploring the different interests and needs of the learners. Instead, the chapter on selecting and developing content and the later one on evaluation of training make it clear that specific objectives, with materials of instruction planned in advance, are essential in employee training. Employee participation in preparing the content of instruction is mentioned but not emphasized.

It is suggested that evaluation be made in terms of the immediate objectives of the program, which may be to do one or more of the following: increase production, reduce costs, change attitudes, develop understanding of agency objectives, provide new skills, retrain in old skills, impart information, or stimulate operating improvements. Examples are given of specific improvements in performance believed to be due to employee training, such as the increased volume of tree-plantings in the forest service after instruction in efficient methods and the comparative reduction in traffic fatalities in counties where state police officers had been given training.

Educators will find this report of interest and value on several counts: (1) It deals with a phase of public administration that depends to some extent on the co-operation of the public schools and of higher institutions. (2) The use of sound educational procedures is assumed to be basic to the training program for public employees. (3) The report is rich in practical suggestions that may be applied in planning programs for the in-service growth of the school staff.

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THE ESSENTIALS OF HEALTH EDUCATION.—A timely book on an age-old subject has been added to the professional literature of the year. Health has long been the concern of society, but too frequently society's efforts have been dissipated, duplicated, or unorganized. A recent publication¹ leaves no doubt of its purpose. It makes no pretense to exhaustive treatment of the contributions of all health agencies, but it presents a blueprint of the part that the schools, and particularly the teachers, play in effective health education. No teacher could read this book and evade the recognition of primary responsibility for health education. Neither could he plead the lack of understanding of the function of the health program or the methods or materials to be used.

The book opens with two introductory chapters dealing with such general phases as the definition of health and health education, the foundation of health education, and the goals to be attained. It then proceeds, as logically as a legal brief, to consideration of curriculum, the common health problems, materials and methods of instruction, the relation of the teacher to other agencies in the school and community, and, finally, the standards and methods of evaluation.

The authors waste little time on history or theory of health education but plunge immediately into a discussion of a practical school program, with the teacher as the focal factor. The book is replete with concrete examples and criteria and is specific to the last detail. Many references are made to objective studies, and the results are analyzed and applications indicated. This volume is utterly devoid of illustrations and employs few graphs or charts. It does include very liberal footnotes and supplies an excellent and comprehensive bibliography with every chapter. It is essentially a teacher's manual, emphasizing throughout the importance of the role of the teacher, but it is sufficiently comprehensive and authoritative to serve as a college textbook, as well as a guide for in-service training.

The proposed core curriculum is definite, specific, and systematic, and accompanying methods of instruction are equally precise. The authors stress attitudes as well as habits and information, but they dispose of incidental and

¹ Ruth M. Strang and Dean F. Smiley, *The Role of the Teacher in Health Education*. New York: Macmillan Co., 1941. Pp. x+360. \$2.00.

haphazard methods in the statement: "There seems to be more justification for systematic treatment of health than for systematic treatment of any other subject" (pp. 106-7). Their adherence to that principle never falters.

The chapter on "Prevalent Health Problems" is similarly comprehensive and encyclopedic. Every phase from height-weight to sex education and mental hygiene is analyzed and related to the whole problem of well-being.

Chapter vi, "The Health Program as a Whole," serves the dual purpose of synthesizing the entire program, which has been dealt with in all its minutiae, and relating the work of the teacher to all the other agencies concerned with health. The philosophy of this section is summed up in two characteristic sentences: "The school health program is a part of a whole community health program; it is not an entity. . . . When all work together, results in better health and physical fitness will be apparent" (pp. 316-17).

The final chapter on evaluation and measurement discusses standards and methods of evaluation and likewise serves as an excellent catalogue of the standardized tests which are available in the field of health and physical attainments.

In a field where the literature is voluminous and studies are plentiful, this book still succeeds in making a definite contribution. It is packed with facts, practical suggestions, and logical formulas that cannot be other than helpful to those responsible for health education. It will prove a ready reference at all times and is particularly valuable now, when a national emergency has re-emphasized physical fitness and aroused public interest in our greatest national asset. No attempt has been made to attract attention by startling comparisons or catastrophic predictions. The book proceeds logically and inexorably to announced goals. Its style is direct, methodical, preceptive, and sometimes arbitrary. One reads this book for information, not for entertainment, but it never fails in its purpose.

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THE PAST AND PRESENT IN AMERICA.—Teachers and pupils alike will enjoy the abundance of human-interest material included in two new books in the field of United States history.¹ These companion volumes, written for upper elementary and junior high school pupils, describe the chief episodes and movements in the history of our country from the time of the early colonists to the present. Each is a contribution to the literature of the field and is certain to add to the enrichment of traditional courses in the history of our country.

The books are written for the purpose of giving boys and girls an understanding of the real significance of American life and institutions and to give them a greater appreciation of American ways. It is the belief of the author that, when

¹ Mary G. Kelly, *Life in Early America*, pp. viii+414, \$1.20; *Life in Modern America*, pp. viii+532, \$1.44. Boston: Ginn & Co., 1941.

young people understand the life of the people in early and in modern America, they will want to learn how to do many things in order to keep up the good work started by Americans of the past; that, when pupils really understand the history of our nation, they will want to help build a greater and better America today.

The volume *Life in Early America* tells the story of exploration and colonization and describes numerous developments and achievements that took place in our country until the time of Thomas Jefferson. The narrative explains how the United States gained the land east of the Mississippi River and describes the experiences of the pioneers as they worked to fill up the back country. A careful selection of subject matter is made, and those incidents and movements that are included are woven into an extremely interesting story. Some persons in the social-studies field will doubtless consider it unfortunate that the major emphasis in the first volume is given to the period before the French and Indian War, but practical considerations with regard to the social-studies offerings in the schools throughout the country appear to make this emphasis defensible.

The straightforward narrative of our country's history is continued in the second volume, *Life in Modern America*. The organization and the content of this book are indicated by the following unit subjects: "Growing toward the West," "Changing Ways of Doing Work," "Getting Rich Quick: The United States Becomes the World's Greatest Industrial Nation," and "Facing the Problems of a Grown-up Nation." As may be seen by these unit titles, the presentation is not entirely chronological in nature; rather, the period that is under consideration is explained in terms of many social and economic concepts. Considerable attention is given to the life of the people since 1814. It appears that the use of the term "life" in the title of the second volume is more appropriate than in the case of the volume *Life in Early America*.

When a writer attempts to tell a story that covers a period of over three hundred years and, in addition, to describe the life of the people who lived during that period of time, serious problems relating to organization and presentation arise. This is the twofold purpose of the author, and obviously the presentation has its limitations. However, the problem has been attacked with vigor, particularly in the case of the second volume. There is a reasonable emphasis on chronology and an adequate treatment of significant social and economic aspects of American life.

The physical attributes of these books have not been neglected. Both are attractive in appearance. The bindings are colorful, and the pictures show activity in its natural setting. One is impressed by the effective typography. In design and manufacture they keep pace with the social and aesthetic trends of the day.

ROBERT B. WEAVER

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A MUSIC COURSE FOR HANDICAPPED CHILDREN.—In the field of music education there are available to music teachers in elementary and secondary schools a number of books in which music courses as well as methods of teaching are outlined and explained in detail. In a recent book¹ Ethelyn Lenore Stinson outlines a course in music, devotes space to describing and explaining the content of the courses, uses many illustrations from her classroom, and presents final results which she observed in her pupils.

The book, not a large one, describes for the most part a course in music appreciation for "exceptional" or "special" children attending the Woods Schools at Langhorne, Pennsylvania. The author describes the "exceptional child" as "the child who is mentally retarded, emotionally unstable, or handicapped by some specific disability such as reading or speech" (p. xi). Early in the book she points out reasons why every school, public or private, should provide a worthwhile music course for all children, regardless of age or talent. In discussing this point, she raises three questions: (1) "How is it possible to create an interest in music in the child?" (2) "Is the child able to appreciate and interpret music?" (3) "Of what value is the knowledge of music to the child?" (P. x.) These questions are answered by a detailed description of the music-appreciation course offered at the Woods Schools, which is presented in three chapters entitled, respectively, "Creating an Interest in Music," "Developing Listening Habits for Appreciation and Interpretation," and "The Value of Music for Every Child."

In the first section of the book the author develops the course under the following eight topics: (1) "Study of the instruments in a symphony orchestra," (2) "Rhythm work," (3) "Interpretation of music," (4) "Gradual introduction of a few of the composers," (5) "Gradual introduction to the stories of the operas," (6) "Study of the fundamentals of music," (7) "Listening to the [Damrosch] Music Appreciation Hour," and (8) "Attendance by all children of at least one or two performances yearly of [a symphony orchestra]." The concluding chapter contains a summary of the ways in which the study of music has proved to be of value for handicapped children in this particular school. The results of the music-appreciation course demonstrate that it is possible to create an interest in music among exceptional children and that they are able to appreciate and to interpret music. Finally the author states that "music offers not only an added joy in the life of the exceptional child, but a medium for modifying his behavior and drawing him closer to the accepted pattern" (p. 133).

Here and there throughout the book the author suggests that her approach to music as well as her procedures may be successfully applied in teaching normal children, and teachers of both "special" and normal children will find in this volume helpful suggestions for organizing and developing a course in music

¹ Ethelyn Lenore Stinson, *How To Teach Children Music*. Published under the auspices of the Child Research Clinic of the Woods Schools. New York: Harper & Bros., 1941. Pp. xii+140. \$1.50.

appreciation. However, the teacher of normal children would have to choose wisely the procedure to be followed in presenting some of the topics included in this course of study. For example, this reviewer believes that normal children would resent being taught that the staff is a ladder; the treble clef, a gate; a sharp, a keyhole; and that the notes are children—sisters, brothers, and play-mates! However, for teachers of music outside the special field, the course is flexible enough to be altered here and there to meet the needs of normal children.

Textbooks, reference works, and books which may be placed in the hands of children are referred to from time to time throughout the volume, and suggestions are given for the choice and use of phonograph records. Here is a well-organized course in music appreciation that should serve as a valuable guide to teachers of handicapped children. To some persons, however, the title of the book might be misleading. Teachers of exceptional children might be more readily attracted to the book if the title suggested the actual content, namely, a special music course for handicapped, retarded, or maladjusted children.

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

- Administrative Adjustments Required by Socio-economic Change.* Proceedings of the Tenth Annual Conference of Administrative Officers of Public and Private Schools, Vol. IV. Compiled and edited by William C. Reavis. Chicago: University of Chicago Press, 1941. Pp. x+236. \$2.00.
- BOND, GUY L., and BOND, EVA. *Developmental Reading in High School.* New York: Macmillan Co., 1941. Pp. xii+364. \$2.00.
- BROWN, CLARA M. *Evaluation and Investigation in Home Economics.* New York: F. S. Crofts & Co., 1941. Pp. xviii+462. \$3.50.
- DEARBORN, WALTER F., and ROTHNEY, JOHN W. M. *Predicting the Child's Development.* Cambridge, Massachusetts: Sci-Art Publishers, 1941. Pp. 360. \$4.50.
- GARDINER, JEWEL, and BAISDEN, LEO B. *Administering Library Service in the Elementary School.* Chicago: American Library Association, 1941. Pp. 162. \$2.25.
- HOLZINGER, KARL J., and HARMAN, HARRY H. *Factor Analysis: A Synthesis of Factorial Methods.* Chicago: University of Chicago Press, 1941. Pp. xii+418. \$5.00.
- LUECKE, EDITHA. *Factors Related to Children's Participation in Certain Types of Home Activity.* Teachers College Contributions to Education, No. 839. New York: Teachers College, Columbia University, 1941. Pp. viii+104. \$1.60.

- MACK, EDWARD C. *Public Schools and British Opinion since 1860: The Relationship between Contemporary Ideas and the Evolution of an English Institution.* New York: Columbia University Press, 1941. Pp. xii+512. \$3.75.
- The New Economic Education at the Secondary Level.* Proceedings of the University of Chicago Conference on Business Education, 1941. Chicago: University of Chicago Press, 1941. Pp. x+116. \$1.00.
- READ, THOMAS THORNTON. *The Development of Mineral Industry Education in the United States.* Sponsored by the Seely W. Mudd Memorial Fund. New York: American Institute of Mining and Metallurgical Engineers, 1941. Pp. xviii+298. \$2.00.
- ROPE, FREDERICK T. *Opinion Conflict and School Support.* Teachers College Contributions to Education, No. 838. New York: Teachers College, Columbia University, 1941. Pp. viii+164. \$2.00.
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Educational News and Editorial Comment

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DEFEND DEMOCRACY BY STRENGTHENING SCHOOLS

A TWO-COLOR folder, prepared by the National Commission for the Defense of Democracy through Education appointed by the National Education Association, carries to local school boards throughout the United States the urgent appeal, "Defend Democracy by Strengthening Schools." The message of the folder is organized in popular, easy-to-read style and gives a startlingly graphic picture of the crisis confronting schools today. The first paragraph states:

Effective and universal education is the bulwark of self-government. The long-time battle for democracy will be won in the schools. Whether it survives will depend upon how earnestly citizens desire to maintain it, and how well prepared they are to make its principles work.

There follow brief reference to the devastating effects on the schools of the first World War and evidence that history is beginning to repeat itself. Teachers' salaries have remained at about the level of 1939, while the cost of living and the earnings of factory workers are rocketing skyward. This situation means that teachers will again be tempted or compelled to go into occupations which more nearly keep pace with the increased cost of living.

Shortage of teachers is already becoming crucial the country over, and there is a tendency, in some shortsighted communities, to lower teacher standards rather than to pay adequate salaries.

The last division of the folder answers the challenge, "What Can Be Done":

The times permit more generous financial support of schools. Incomes in general are rising faster than the cost of living. Property is worth more. Tax delinquency is less.

The increase in cost of military defense need not, *must* not, crush the schools. It is the responsibility of school boards to see that it does not do so. They must appeal to communities and legislatures for increased funds.

Already farsighted boards of education are meeting this challenge. In several large cities a 10 per cent "cost-of-living bonus" has been added to existing salaries. Higher salary schedules have been adopted in some school systems. All school boards are urged to take action of this kind *now*. It is their responsibility to strengthen the schools as the bulwark of American democracy.

A letter from Secretary Givens of the National Education Association accompanied this folder, in which he pleaded "that we not weaken our long-time defense of democracy as we did in the war of 1917-18" and urged that all boards of education, in order to prevent a serious decline in the quality of educational opportunity, take action for the protection of the schools before it is too late. Releases were also sent to newspapers in each of the communities, describing the crisis in education and telling them of the appeal to school boards, so that there might be a local follow-up in each case. The January issue of the *Journal of the National Education Association* contains an editorial and several leading articles which elaborate the content of this folder.

In referring to the group that was responsible for the folder, the *School Executive* of November, 1941, says in its editorial comment:

At Boston the National Education Association set up a new agency, the National Commission To Defend Democracy through Education. It was a timely act and one that should result in much good to the profession as well as to the country at large.

In our profession the defense of democracy can be best promoted through the practice of democratic principles in the everyday life of the school, and presumably this new Commission will direct part of its energies to this end.

The work of the Commission will be followed with great interest. It will help to show that educators believe in *practicing democracy* as sincerely as they believe that educational opportunity for all is essential for the advance of democracy.

The unanimously adopted resolutions which came out of a conference held on November 11 between the National Commission for the Defense of Democracy through Education and the Committee on Educational Co-operation of the National Association of Manufacturers give heartening evidence that groups other than those in the educational profession appreciate the invaluable part which public education plays in the maintenance of a democratic way of life and that they are ready to go on record for its support. These resolutions are recorded in the January, 1942, issue of the *Journal of the National Education Association*. The one most pertinent to the foregoing discussion reads:

WHEREAS, The essence of a system of popular self-government is the ability of the electorate to deal intelligently with the public issues submitted to it for decision, and to select those who are to represent it in public affairs with wisdom and sound judgment, and

WHEREAS, The National Association of Manufacturers consistently has believed that this requires a system of public education which will enable the citizen of our republic to receive the education which will enable him to make his maximum contribution to society and which society can afford to provide, and

WHEREAS, The increasing devotion of public funds to national defense purposes will and should require governmental economy in other directions and may presage inadequate consideration of our educational needs and financial requirements,

Be It Resolved, That the administration and conduct of public education is an essential public service; that its reasonable financial support constitutes a necessary claim upon our American society to which other public services of lesser value should be subordinated.

The action of this joint group is of greatest significance in the effort to "Defend Democracy by Strengthening Schools."

The school's responsibility in a defense program has certainly not been met through the provision of certain military and vocational-training courses in high schools and colleges and through a specialized program of adult education—important as these services may be to a country at war. There remains the large responsibility of maintaining as stable and as enlightening and as effective a program of educational experiences as it is possible for a finely trained staff of teachers to provide—all this for the purpose of developing at least some degree of intelligent comprehension, on the various levels of the children's understanding, of what is going on in the tragically upset world of today. It is only as some sort of understanding is built that

emotional sanity can be maintained. No one minimizes the necessity of emotional balance—morale—in time of crisis, and the schools are the best agencies for building and maintaining this balance as they work together, of course, with the home and community.

THE CARE OF PRESCHOOL CHILDREN

IN OUR efforts to make schools serve in a time of national emergency, it is not enough that they "hold their own." In many communities, such as Seattle, Washington, and Rock Island and Winnetka, Illinois, the public schools are expanding to provide, sometimes in co-operation with other agencies, not only for five-year-old children but also for two-, three-, and four-year-olds. The care and wise direction of intelligently trained, understanding teachers are more needed by these young children than by any other group, especially in areas of extreme congestion and insecurity. No country can afford, in the name of emergency, to curtail the early protection and education of its children.

We may well profit by England's experiences in caring for very young children. The November 29, 1941, issue of the London *Times Educational Supplement* contains a detailed discussion of the "Care of Under Fives." To quote in part:

Ever since the outbreak of war the evacuation of threatened areas has been an object of policy, pursued with more or less assiduity by the government, and with more or less success. Evacuation has meant especially evacuation of children, and so far as school children are concerned an organization already existed in the schools themselves. . . . But the project included no adequate provision for preschool children. . . . For children from two to five it has come to be generally recognized that an organization ought to be created, particularly as in their case the problem is not one of physical care alone, but one also of education.

There follows a discussion of the need for a central department to deal with all aspects of child care. Three suggestions are made for the organization of this central department, each involving the Board of Education and the Ministry of Health.

The first year's report of the Hampstead Nurseries, supported by the Foster Parents' Plan for War Children, holds more than general humanitarian interest for us in the United States at the present time. It was written by Anna Freud, director of the colony, and tells of the

care given London children whose homes have been bombed, children who have been forced to sleep in the subways, or those who are unable to remain in their homes because of war conditions. This report has practical suggestions for all regions which are planning now for the care of children in areas which may be subjected to fire and ruin. As this statement is written, it seems impossible that "this can happen here"; but it has—in Hawaii—and we ought to begin to plan while there is still time for calm, intelligent consideration of best ways to act. Further information concerning these reports of Anna Freud may be had by writing Edna Blue, executive chairman of the American Headquarters of Foster Parents' Plan for War Children, 55 West Forty-second Street, New York City.

SERVICE BULLETINS

THERE is a growing appreciation of the need to demonstrate how the best of modern educational theory can be and is being translated into practice. Almost every professional organization senses its obligation to perform this service for its members. The Educational Policies Commission published *Learning the Ways of Democracy* as a concrete illustration of what it was talking about in its more theoretical publications. The Foreword states that "this study is pointed deliberately at *implementation* of the democratic way of life in and through our schools."

Bulletins of Association for Childhood Education The Association for Childhood Education publishes two membership and two service bulletins each year. The form and the content of these bulletins are determined, in large part, by the type of requests for help which come to headquarters from members. The publications of 1940-41 include *What Is a Nursery School?* "Kindergarten Portfolio," *Independent Work Periods*, and *Readiness for Learning*.

What Is a Nursery School? is a brief, direct, question-and-answer type of bulletin, written by Lovisa Wagoner, of Mills College, Oakland, California, and Elizabeth Neterer, of Seattle, Washington. It is planned to help laymen and teachers of older children understand what a nursery school is, to show what it does for children and par-

ents, and to give some standards of evaluation. It answers, in non-pedagogical terms, that often repeated question, "What *is* a nursery school?"

"Kindergarten Portfolio" is a loose-leaf packet containing materials which answer in brief and practical ways many of the questions concerning the value and extension of kindergartens. There are twelve of these leaflets, which have to do with kindergarten legislation, the present kindergarten situation in the United States, the kindergarten's contribution to child growth, school life, parent education, appropriate equipment and procedures, and guides for evaluation. This packet was prepared by a kindergarten committee of the association, under the leadership of Louise M. Alder, of the State Teachers College, Milwaukee, Wisconsin.

Independent Work Periods was published as a result of countless pleas from teachers of young children: "How can the rest of my children be profitably and enjoyably occupied while I work directly with one group of them or with individuals?" It's the old "seatwork" problem that is now being answered in terms of real educational opportunity. Six primary-grade teachers tell how they make these periods contribute to the best growth of the children; how they use the time for developing self-direction and self-reliance—highly important traits to be cultivated in all individuals. Gladys Greenman, of Greenwich, Connecticut, was the compiler of this bulletin.

Readiness for Learning clears up many vague and confused concepts of the readiness principle. In fields other than education, the condition of readiness or non-readiness seems to be understood more clearly. Gertrude Hildreth, of Teachers College, Columbia University, was responsible for the compilation of this bulletin. She says in the Foreword:

The modern school program in the kindergarten and primary grades is founded on a child development curriculum. In this program the child's functional needs for each stage in development constitute the point of departure for activities provided and instructional procedures employed. In such a program readiness for learning evidenced in the child's mental maturity, interests, and experiential background becomes the basis for introducing the child to new skills.

The major portion of this bulletin is devoted to descriptions and analyses of experiences out of which readiness is built for reading,

primary-grade numbers, handwriting, music, and speech. The concluding chapter concerns "Readiness and Parent Education."

It is recognized that there are many other learnings in primary education which are equally important and for which readiness is an essential concept, but it was not possible, within the confines of one bulletin, to deal with them. Although this bulletin has reference primarily to learning skills in the primary grades, it is helpful to teachers of all grade levels because the readiness concept is essential wherever or whatever new skills are taught.

Further information about these bulletins and other publications of the Association for Childhood Education may be obtained from the national headquarters, 1201 Sixteenth Street, Northwest, Washington, D.C.

Pamphlets issued by the P.E.A. Service Center The Progressive Education Association has recently initiated a series of "Service Center Pamphlets," five of which were published in the past year. The first, entitled *The Community—A Laboratory*, was prepared by Jane Mayer, a parent, and Miriam Sutherland, a teacher, in Glencoe, Illinois, who write:

There is a growing feeling among educators that learning confined to the schoolhouse cannot offer a complete educational program. There is a tendency to take the school into the community and to bring the community into the school. . . . This is not as simple as it sounds. . . .

Certain of the steps Glencoe has taken in this direction have already proved their value. They have been taken only after studying the needs of both school and community and have been brought about by an interlocking of many agencies. They are presented here not as formulas to be followed but as possible stimulants to other schools and communities to discover and meet their own problems in their own distinctive way.

The procedures used in Glencoe are described in practical detail, and a list of suggested readings is included.

Teaching Reading in the Elementary School has been compiled by the staff of the Maury School, Richmond, Virginia. Actual procedures are described under such headings as "Reading Skills Develop Best in a Well-planned Scheme of Day-by-Day Living," "Learning To Read Is a Personal Matter," "The Kind and Quality of Material Has an Important Bearing on Reading," and "Reading Skills Develop Continuously throughout the Whole Elementary School."

Teaching Art in the Elementary School, written by Charlotte R. Major, of the State Teachers College, Milwaukee, Wisconsin, is based on the following premise:

Art has a twofold part to play: first, to help develop the individual child, to provide him with a means of self-expression, enabling him to gain a better understanding of himself; second, to contribute to the social development of the group by affording opportunities through which children may learn to work together for the common good of all.

The pamphlet is organized into two parts: "Art in the Child's Expanding World" and "Programs and Procedures." The second division deals also with materials and equipment and includes some illustrative diagrams.

Teaching Music in the Elementary School was prepared by Beatrice Perham Krone from the revised edition of her textbook *Music in the New School*. This pamphlet emphasizes both maximum individual development and social responsibility as its democratic philosophy and elaborates in its introductory division five bases on which a music program should operate:

1. The purpose of the music program in the public schools is to help all children to maximum enjoyment and development in music.
2. Every individual in the classroom must be helped to find joy and release of spirit through music.
3. Teachers must be much more concerned with what is happening to the child than with the perfection of the finished performance.
4. The music experiences of each classroom group must be co-operatively planned by the children, the classroom teacher, and music specialist around the needs and interests of the children.
5. The classroom teacher is indispensable, whether she sings or plays or whether she does neither.

The bulletin describes practical applications of these principles through singing, use of simple instruments, rhythmic dramatization, listening to music, and interchange of musical experiences between school and home.

Classification of Pupils in the Elementary School, the fifth of these service pamphlets, was written by J. R. McGaughy, formerly a professor of education at Teachers College, Columbia University. Various practices in grouping, grading, and promotion of children are tersely analyzed in accordance with the author's basic principle, which is stated as follows:

In any system of classification based on a thoroughgoing respect for children and on learning as living, the only criterion really worthy of stress is, in the opinion of a growing number of educators, that the child shall be in the group in which he is best stimulated to make whatever contributions he is able to make. This means, of course, that he should be in a group in which he can feel he "belongs" and is respected, a group in which he can go about his living happily.

All five pamphlets make excellent contributions to that growing body of literature indicating that modern educational theory can and does work in the classroom. They may be obtained for twenty-five cents each from the Progressive Education Association, 221 West Fifty-seventh Street, New York City. The Progressive Education Association says of its pamphlets:

The P.E.A. Service Center has been established to help members of the Progressive Education Association solve problems they face in their daily school work of creating an environment that will promote the fullest development of each individual. This series of pamphlets is based on the most insistent requests for help that have come to the Service Center.

Informative leaflets on the public-school system The "Know Your School" series of leaflets prepared by the United States Office of Education provides excellent study guides for all individuals or groups, not excepting teacher groups, wishing to become better informed concerning the public-school system both in their immediate communities and in the country as a whole. Early publications in the series have been mentioned before in these pages.

More recent additions to the series include *Know Your School Child*, *Know Your Modern Elementary School*, *Know How Your Schools Are Financed*, *Know Your State Educational Program*, *Know Your School Library*, and *Know Your Community as a Basis for Understanding the Schools' Problems*. These later leaflets are much more detailed than were the first of the series in their content and in their suggestions for study by teacher-parent associations and all other civic groups on which school systems depend for intelligent interpretation and support. Preparation of these leaflets was undertaken by the Office of Education at the request of the American Association of University Women. The brochures may be purchased for ten cents each from the Superintendent of Documents, Washington, D.C.

A SIGNIFICANT CURRICULUM TREND

CURRICULUM-MAKING and curriculum revision we shall have with us as long as schools strive to fit educational procedures and activities to current living situations. As was pointed out in last month's "Educational News and Editorial Comment" in the *Elementary School Journal*, one significant trend has been the decentralization of curriculum organization and the taking-over of this responsibility by local school committees. Their efforts have brought slow but definite improvement in intelligent experimentation, analysis, and revision to meet local needs more efficiently.

Another trend becomes apparent as one reads of the undertakings of various school systems: that of co-operation between elementary and high schools in the making of a unified curriculum which will serve through the entire length of school experience provided by the community. Because of their increased knowledge of the continuous, highly individualized process of child development, educators are beginning to understand that school experiences also must take on this continuous, highly individualized character. Only as teachers who work with children at various stages of their development plan together, can this type of curriculum be built effectively.

In Joliet, Illinois, a project in curriculum reconstruction is being undertaken under the guidance of a committee from the Department of Education of the University of Chicago. Representative teachers from the primary grades through junior college, as well as the superintendents of both elementary and high schools, met together several times last year to set up the general and the specific objectives of a curriculum best adapted to the particular needs of Joliet. This group then divided into subcommittees to develop, in detail, the six divisions into which the curriculum is to be divided: social science, physical science, language arts, mathematics, arts and crafts, and specialized training (for individuals not desirous or capable of meeting the requirements of the general curriculum). From this local, co-operative study under expert guidance there will be built a fourteen-year curriculum.

Principals and teachers of Portland and neighboring towns in Oregon are working toward a twelve-year program in an extension class of the Oregon System of Higher Education. These committee members, representative of the kindergarten through high school, prepared a series of five reports, edited by Hugh B. Wood, of the University of Oregon, which outline "Curriculum Trends and Recommendations" for twelve-year programs in social studies, language arts, science, mathematics, and arts and crafts.

Because the kindergarten teacher has this long, relatively clear view ahead, she will have a much better understanding and appreciation of the foundations which she is helping to build in children at the five-year level of their education. The high-school teacher will be much more intelligent and sympathetic in her leadership because she has a well-defined overview of the previous activities of the children. All communities that conceive of curriculum-making as a joint, co-operative undertaking of the entire school system will avoid, or at least lessen, dull repetition and unnecessary overlapping of experiences, gaps and inadequacies in learning, misunderstandings and stupid criticisms, and many ineffectual procedures.

NATIONAL DEFENSE BOOK CAMPAIGN

A RELEASE concerning the collection of books for the country's armed forces did not reach the editor's desk soon enough to announce the beginning of the campaign, but there is still plenty of need to participate. At a time when all of us not actively engaged in war work are saying, "What can we do?" this request offers one most worthy response.

Books by the million will change hands in the National Defense Book Campaign starting Monday, January 12, 1942, when readers in homes throughout the land will share the books they have enjoyed with our soldiers, sailors, and marines.

The campaign, sponsored by the American Library Association, American Red Cross, and United Service Organizations, seeks ten million books for U.S.O. houses, Army "dayrooms," ships, naval bases, etc. Books should be taken to libraries, where they will be sorted, repaired if necessary, and sent on as quickly as possible to the spots where men in the service want books. In many communities, schools and other conveniently located places will be designated as collection centers. Unbound magazines and newspapers will not be handled.

GOLDEN JUBILEE OF THE ASSOCIATION
FOR CHILDHOOD EDUCATION

THE Association for Childhood Education will hold its Golden Jubilee convention in Buffalo, New York, on April 6-10, 1942. Fifty years ago the International Kindergarten Union was organized at Saratoga Springs, New York, during the thirty-second meeting of the National Education Association. In 1930 the International Kindergarten Union adopted a new constitution and the name of the Association for Childhood Education, and in 1931 the National Council of Primary Education adopted the new constitution and name of the association.

The national observance of this anniversary will open with the convention at Buffalo. One evening's program, Anniversary Night, will depict in dramatic form the fifty years of past history and a glimpse into the future for the organization. The dinner meeting will be reminiscent of significant milestones in the life of the organization. Later, local and state branches will celebrate this event in their own communities. The two purposes chosen as guides for these observances are:

That through the anniversary activities the thirty-six thousand members may be closely united for more effective work by becoming better acquainted with the history, the program, and the services of their organization.

That through the anniversary activities the general public may become better informed about the needs of children and more wisely active in securing adequate educational and welfare opportunities for them.

"Unity in Purpose and Effort in All Service to All Children" is the timely theme for this Buffalo meeting. Because of the tragic uncertainty of these days and unpredictable demands which may be made on both children and teachers, the Executive Board, under the leadership of the president, Marjorie Hardy, of the Germantown Friends School, Philadelphia, Pennsylvania, has planned a program with sufficient flexibility to meet emergency considerations. In addition to seven general sessions, several forums, studios, and consultation hours, there will be fourteen study classes. Eight of these will give consideration to ways of providing better opportunities for child development, and six will consider how better opportunities may be provided for the child to build resources within himself.

OLGA ADAMS

HERE AND THERE AMONG THE SCHOOLS

THE following items include four interesting examples of school and community practices which represent departures from the traditional procedures affecting schools and school children. These innovations have been instituted in connection with the study of vocations, the regulation of pupil traffic in the school building, the development of art appreciation, and the providing of nursery-school advantages for young children in a small town.

Vocational "movie" made by an eighth-grade class "From the Ground Up" is the significant title of a "movie" recently completed by an eighth-grade class of the North Fairmount School in Cincinnati. This project, carried out under the direction of Luise Reszke, is described in *Better Teaching*, the monthly bulletin of the Cincinnati public schools.

The general purpose of the project was the gathering of information concerning the nine major occupational divisions. Facts were assembled regarding the need of each occupational area for workers, the qualifications that such workers must have, the salaries or wages paid, and opportunities for promotion. Data were also assembled on the occupational distribution of parents of pupils in the Cincinnati schools, and a tabulation was made of the vocational choices of the pupils themselves. The interpretation of these data was guided by a series of panel discussions pertaining to the factors to be considered in selecting a vocation and the responsibilities of adults in helping young people to plan their future careers. The work of this problem was constructively related to other subjects of study; the social studies, language arts, health and safety, the fine and practical arts contributed facts or techniques useful in the organization and the interpretation of the knowledge that these pupils were acquiring about the vocational problems in which they were interested. Pictures and graphs, provided with appropriate captions and mounted on a large roll of heavy paper, constituted an informative and entertaining "movie." Colored lighting and appropriate music were used to make the presentation more effective.

Traffic court established in an intermediate school As a means of providing more practical experiences in self-government and citizenship, a resourceful teacher in a Detroit school established a traffic court to handle cases involving infractions of rules and conventions governing pupil conduct in the corridors and the locker-rooms between classes and at intermissions during the school day. The court was opened in the second semester last year by Gertrude Gerock, auditorium teacher in the Hutchins Intermediate School. The device is described by Florence L. Preuss, faculty news reporter for the *Detroit Education News*.

Since the establishment of the "court" there have been a gratifying decrease in traffic violations and a decided improvement in the orderliness of pupils in the halls. Operated by the pupils, the court is providing valuable motivation for pupil recognition of civic responsibility. It is asserted that traffic-ticket "fixing" is never attempted.

Traveling exhibits of art for schools in Nebraska Under the provisions of a grant from the Carnegie Corporation of New York, the Extension Division and the Art Department of the University of Nebraska are enabled to furnish exhibits of valuable art collections for display in town and rural schools in fifty-six counties of that state. The exhibit may be retained in a given school for one week. The largest exhibit includes thirty-four paintings and is available for a rental fee of twenty-five dollars. This exhibit is designed primarily for the larger communities. A second group of paintings, ten in number, is available at five dollars and is considered suitable for rural and village schools. A third group includes eight pictures which may be secured by county superintendents at a fee of ten dollars and may be retained until each rural school has had the opportunity to use the exhibit for one week. The extent to which the exhibits are actually utilized by the schools is indicated by a report in the *University of Nebraska News*, in which it is stated that more than two hundred thousand persons have viewed these traveling exhibits during the past three years.

When an exhibit is to be installed, Mrs. M. E. Vance, of the University Extension Division, supervises the hanging of the paint-

ings and gives gallery talks to both children and adults. One regulation is enjoined upon the teachers and principals while an exhibit is on display: the children are not to be required to write stories or compositions about the pictures.

A mothers' club operates a summer nursery school Four years ago members of a home demonstration club in Woodstock, Windham County, Connecticut, opened a summer nursery school for the purpose of providing companionable group activities for children between the ages of three and five and a half years. Doris B. Child, home demonstration agent for Windham County, describes the plan and the success of this project in the January issue of *Extension Service Review*, monthly publication of the United States Department of Agriculture.

Each summer the members of the Woodstock Mothers' Club borrow the necessary furnishings and equipment to carry on an appropriate program of activities for children of this age group. Parents of the children concerned and interested friends of the project lend toys, books, seesaws, swings, slides, hammers, and saws and donate money or materials for a lunch at the middle of the morning session. A small tuition fee contributes to the compensation of the instructors and provides materials for drawing, painting, clay-modeling, and other means of expression or activity. A community church provides housing and space for outdoor play. The increase in enrolment from year to year affords substantial evidence that the nursery school is effectively serving the social and physical needs of preschool children in this community.

For the past two years the nursery school has conducted an "open-house" day, and many mothers and interested friends have visited the school at that time. Visitors are always welcome because the school is serving as a valuable demonstration in the community. As is pointed out in the *Extension Service Review*, such a demonstration is particularly valuable in these days of emergency, when co-operative effort will be necessary in many places to solve the problems arising from parents' participation in civilian defense and from concentration of populations in defense-manufacturing areas.

WHO'S WHO FOR FEBRUARY

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by OLGA ADAMS, teacher in the Laboratory Schools at the University of Chicago. SYLVIA PAULAY, editor of *Progressive Parents*, a publication issued monthly by the Progressive School, of Los Angeles, California, discusses the relation of progressivism in education to the practice of democracy as a way of life. E. D. TETREAU is professor of rural sociology at the University of Arizona, and VARDEN FULLER is associate agricultural economist in the Division of Farm Population and Rural Welfare, Bureau of Agricultural Economics, United States Department of Agriculture. These authors contrast the educator's and the sociologist's points of view concerning the effect of migration on school achievement of children and give detailed findings of a study of the relation that father's occupation, region of former residence, mobility, and length of residence in the state bear to the age-grade status of migrant children in Arizona. LESLIE W. IRWIN, teacher in the Laboratory Schools at the University of Chicago, and JAMES W. PAUSTIAN, superintendent of the public schools at Harris, Iowa, report the findings of a survey made in 167 elementary schools to discover (1) practices pertaining to various phases of the organization and work of safety patrols and (2) opinions of the schools and communities with regard to the values and the results obtained from the now widely prevalent use of patrols. LUTHER C. GILBERT, professor of education at the University of California, and DORIS WILCOX GILBERT (MRS. LUTHER C.), of Berkeley, California, report an experimental study undertaken to discover whether a person reads in a normal manner when reading before the eye-movement camera. HERBERT F. SPITZER, assistant professor of education and principal of the University Elementary School at the University of Iowa, suggests how a simple abacus can be used as a teaching aid to clarify, for young children, five important characteristics of the number system. CLARENCE R. STONE, author of various methods books on reading instruction and various reading textbooks and workbooks for the elementary school, describes the findings of a study of

the vocabularies contained in 107 textbooks in reading used in the primary grades and gives some challenging conclusions drawn from the study. HERMAN G. RICHEY, assistant professor of education at the University of Chicago, supplements the data on enrolment presented in last month's issue of this journal with statistics on educational incomes during the decade 1860-70 and indicates the progress of education during that period. WILLIAM C. REAVIS, professor of education, and NELSON B. HENRY, associate professor of education, both at the University of Chicago, conclude the list of selected references on public-school administration which was begun in the January number of this journal.

The writers of reviews in the current number G. T. BUSWELL, professor of educational psychology at the University of Chicago. HILDA TABA, assistant professor of education at the University of Chicago. GUSTAV J. FROELICH, supervisor of the Records Office in the Laboratory Schools and instructor in education at the University of Chicago. HANNAH LOGASA, teacher-librarian emeritus, Laboratory Schools of the University of Chicago.

PROGRESSIVISM AND DEMOCRACY

SYLVIA PAULAY

Progressive School, Los Angeles, California

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THE DEMOCRATIC WAY OF LIFE

THE democratic way of life has been the beacon and inspiration which in the early days carried freedom-loving people through the storms of the fearful Atlantic and later sustained millions during the struggles involved in pioneering a new and strange land. The principles and attitudes implied in the democratic way lay emphasis on man's determination to guide his own destiny toward liberty and the pursuit of happiness. Force, involved in keeping man under the yoke of kings, was dispensed with when man ruled himself and made his own laws.

This principle of self-government within a nation can only be maintained by a nation of individuals whose behavior is developed by discipline of self, just as we consider force the least desirable means of control in education. Plutocracy and tyranny develop when the educational system follows rather than leads in determining social policies. Whenever the educational system is the servant of the state, rather than the determiner of the national philosophy, a democratic way becomes nonexistent. On the other hand, if individuals are trained from the earliest formative years to be guided by socially co-operative feelings and are given opportunities to develop skills in self-mastery and creativeness, the continuation and the extension of democracy are assured.

In true democracy, seeds of new progressive ideas are necessarily inherent. The development of these ideas is a barometer of the quality of freedom which we enjoy. Consequently, if there is a clear realization that our type of education represents the status of our democracy, we shall always, in self-defense, encourage a critical inquiry into our own methods, which we are too much inclined to take for granted merely because they have been with us all along.

Until very recently we have been building upward as a pioneer people. The labor pains of our hard-working ancestors produced a great country, ripe for our enjoyment. But the world is not static. No sooner had we expected to garner the harvests than our hopes are thwarted. Smug, considering ourselves quite safe, we find ourselves challenged by some of life's pirates.

These tyrants abroad, already having introduced a return to medieval barbarism, challenge our right, even our ability, to carry on our democratic way of life. We must and will meet the test. The question forced on educators will be: "Is our educational system flexible enough to meet the exigencies of the times?"

With each changing trend, our powers of diagnosis and adjustment are put to the test. The theory of individual freedom preceded the actual dethronement of kings. That theory was the "progressive education" of that day. As we see, the goal of progressive education is different in each age, but the principle underlying it is the same in all ages. A lover of inquiry, progressive education subjects outworn modes of life to the standards of utility and benefit to human liberty and freedom. Condemning license always, it recommends an evolutionary process.

Kings lost their prestige in men's eyes, and achievement by the individual, "self-made," became the new criterion of honor. Freedom of the individual to think and raise himself to higher fields of endeavor became the *laissez faire* in education, as well as in economics. With the continued progress of modern times, certain individuals became too powerful, and freedom-loving people created laws to curb these persons for the common good.

Life, ever on the move, eddies us into a world where groupings are the order of the day. Men's work becomes more and more specialized. The chief objectives now are to develop increased co-operation while retaining the freshness of perspective coincident with individuality and to develop individuality to that extent where it becomes creativeness for the common good.

Let us bring the thesis down to the individual personality. Progressive education believes in a clear distinction between freedom and license. It recognizes, certainly, a need for discipline always, but with emphasis on self-discipline. Discipline by force is condoned

only in unique cases under unique circumstances, where attempts at direction and control have failed, and for the prevention of a situation which might prove harmful to the person himself or his neighbors.

Thus it is seen that these forward-looking trends of present-day democracy, whether social or personal, come under the definition of present-day "progressive education."

THE PLACE OF PROGRESSIVE EDUCATION IN TRAINING FOR THE DEMOCRATIC WAY OF LIFE

Progressive education, as we know it today, arose around the year 1918 and was a far cry from the modern implication of the term. It differs as much from the ideas then current as does our modern conception of democracy from that of the ancient Greeks.

At its inception, progressive education was based on the recognition of a need to get away from the traditional system of the three R's, which was failing to meet the needs of the growing understanding of child behavior. With the introduction of psychology into the family of sciences, new vistas of child patterns of growth unfolded. Educators' philosophies veered in their orientation from filling the child with "subjects" and factual knowledge to picturing the child as a total growing personality and developing his attitudes and skills so that he should be prepared to exercise them in becoming a constructive citizen. The method of "lecturing at" children was to be supplanted by that of exposing them to subjects of interest within the range of their age and background and giving them practical opportunities to express, through the creative arts and skills, what they had learned. In short, there was a definite protest against the old method of making intellectual sponges and "regurgitators," in the name of education; for children, like all human beings, find more enjoyment in "learning by doing." Learning sticks more that way, too.

Under the old system all learning was passively acquired. This type of learning led to the development of a trait of self-restraint which was so overemphasized as to lead to a confusion in standards. A child was in constant bewilderment because of the natural desires of self-expression and a certain inherent individuality of reaction

which could not be reconciled to the attitude that "children should be seen and not heard."

The criteria of good behavior in the classroom were based on how quietly the child could sit, with hands folded, and respond to teacher's questions with the answers given in the textbook (and in some cases in words as nearly like those of the textbook as possible). A child who could meet these standards was considered a model student. The maelstrom of possible conflicting unadjusted emotions, running rampant within a questioning, sensitive child, was something out of the pale of education. That was left to the minister—to weed out the devil. Any child who could not conform to such restraint was not only a poor student but a "bad" child. How easy it is to blame the young for the follies of their elders!

Did you ever happen to be in or about a school yard at recess time? Did you come away with a sort of panic at the utter wildness of the children running, bumping, and "hollering" crazily? Did you ever wonder how we could have a civilized world with such violent "brats" as the founders of a future generation? Then, after you were well away from the noise, did you resign yourself to the conclusion, "That is human nature after all!" and sigh to yourself? I did, years ago, before I began to regard human energy as a golden potentiality rather than an evil to be curbed. Energy is the force propelling creativeness. As we have learned to channel the roaring waters into dynamic power-houses for human use, so we harness and guide human energy into forces producing ever greater civilizations.

Unrelated facts with no roots in experience, no matter how conscientiously studied, mean nothing to us unless they are integrated with emotional, skilful, and social associations. Therefore progressive education of today emphasizes this realization as a basic one in developing constructive, happy personalities. That children must learn with all five senses, and with their hands and feet, is a simple truth, but a truth too often disregarded.

Progressive education has the same basic principles today upon which it was founded over twenty years ago, but it has been a continuous sufferer on account of its practitioners rather than its principles. It is necessary, however, that the point of view on discipline be made clear. To repeat, self-mastery through social co-operation

and learning by doing is tempered with control by elders imbued with an interest in the total growth of a personality. This attitude takes the place of the former idea of cramming a child with subjects and expecting obedience merely by virtue of authority. The old attitude of passive learning and of coupling obedience with authority creates the fertile ground in which seeds of dictatorships thrive, and it has no place in a democratic country.

These progressive techniques, as time goes on, are "streamlined" to give the vital forces of nature a greater encouragement in the seeking-out of its destiny. These techniques are carried over into the democratic family life, where parents are friends and guides to their children. Teachers and parents work together closely in an effort to understand the child as a separate individual. Such home and school life is based on harmony and results in mutual joy and willingness to work toward peace and prosperity. It is clear, therefore, that continued introduction of progressivism in education augurs well for the national destiny.

SOME FACTORS ASSOCIATED WITH THE SCHOOL ACHIEVEMENT OF CHILDREN IN MIGRANT FAMILIES¹

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RECENT migrations to Arizona have been made the subject of a state-wide study begun in January, 1940, and brought to a conclusion during July, 1941. The larger study dealt with the volume and the characteristics of migration to Arizona in 1930-39. Only part of the results of this study are here reported. This article is concerned with the school achievement of children in migrant families. The point of view is not so much that of the teacher or the school administrator as that of the student of social organization.

The school man's angle is well presented by Larson in his article entitled "Migration and Its Effect on Schools,"² in which he emphasizes the retardation of migrant children with respect to age-grade progress and indicates that, during the course of a school year, a given Arizona school may contain from twenty to fifty migrant children in each one hundred of total enrolment. He advises better record-keeping in order that migrant children may be guided more intelligently in their school work, and he shows the need for a uniform method and content of instruction from school to school as a means of facilitating the adjustment of migrant pupils.

Social organization also takes account of school achievement, but

¹ This study was conducted by the Arizona Agricultural Experiment Station and the Arizona State Department of Education in co-operation with the United States Department of Agriculture. Statistical and clerical assistance was furnished by the personnel of the Work Projects Administration Official Project 65-2-08-101.

² Emil L. Larson, "Migration and Its Effect on Schools," *Elementary School Journal*, XLI (December, 1940), 283-97.

the age-grade position of the pupil is considered more as an indicator of success or failure in the pupil's adjustment to the requirements of the school and the community than as a problem in the method and the content of instruction. These points of view supplement each other, the school man's emphasizing the means of drawing out the abilities of the individual and the sociologist's giving more attention to the position of the individual in the group and to factors associated with that position.

SOURCE OF DATA

The data for this report were obtained by the use of brief questionnaires distributed through all the elementary and high schools of Arizona. Only those children whose parents had come to Arizona since January 1, 1930, were asked to complete the questionnaire. The pupils filled out the questionnaire at school with the aid of the teachers. All pupils meeting the residence requirement were eligible regardless of their parents' occupations or of their intentions with regard to remaining in the state. Returns from the survey were made by 20,881 pupils representing 13,334 families. For purposes of this report the replies of 13,000 older children were tabulated.

Only children ranging in age from eight to sixteen years, inclusive, were used in the tabulations of grade in school, occupation of the head of the household, etc. The inclusion of younger children would have lowered the average age of those in Grade III, while counting in those who were seventeen years and over would have raised the average age of pupils in Grades XI and XII. Further economy in tabulation was effected by using data for the two oldest children in school from each family.

Almost a third of the children whose ages and grades in school were classified came from families of skilled and semiskilled workers; one-fourth were from "white-collar" families (professional, proprietary and managerial, and clerical workers); one-fifth came from farm laborers' families; one-sixth from unskilled nonagricultural laborers' families; and the remainder, or about 6 per cent, from the families of farm operators. The occupational classification was as of January, 1940.

RELATION OF AGE-GRADE STATUS TO OCCUPATION
OF FATHER

The ages and the grades of the children in school were first compared with the occupations of the heads of the households. Assum-

TABLE 1
MIGRANT CHILDREN IN ARIZONA CLASSIFIED BY AGE AND SCHOOL
GRADE REACHED AND BY OCCUPATION OF HEAD OF FAMILY

AGE AND GRADE IN SCHOOL	CHILDREN OF—				
	Profession- al, Proprie- tary and Managerial, Clerical Workers	Farm Oper- ators	Skilled and Semi- skilled Workers	Unskilled Laborers	Farm Laborers
Percentage of Two Oldest Children of Family in "Standard" Grade for Age*					
Age 8, Grade III or higher.....	62.1	54.4	54.1	38.2	27.8
Age 9, Grade IV or higher.....	57.7	56.6	45.7	32.9	21.1
Age 10, Grade V or higher.....	58.1	53.5	43.5	30.8	23.3
Age 11, Grade VI or higher.....	57.1	50.2	37.1	17.2	14.9
Age 12, Grade VII or higher.....	47.6	30.1	40.4	21.0	14.2
Age 13, Grade VIII or higher.....	48.1	37.2	41.8	26.4	10.1
Age 14, Grade IX or higher.....	53.8	36.2	38.2	19.8	13.8
Age 15, Grade X or higher.....	53.5	29.9	31.8	17.0	7.9
Age 16, Grade XI or higher.....	48.0	52.4	37.0	31.7	9.2
Average Age of Children in Grade					
Grade III.....	8.7	9.0	8.9	9.5	10.2
Grade IV.....	9.7	10.2	10.0	10.5	11.0
Grade V.....	10.7	11.4	10.9	11.5	11.9
Grade VI.....	11.7	11.8	12.0	12.7	12.7
Grade VII.....	12.7	13.1	12.9	13.4	13.6
Grade VIII.....	13.7	14.0	14.0	14.1	14.4
Grade IX.....	14.5	14.7	14.7	15.0	15.0
Grade X.....	15.4	15.7	15.6	15.7	15.7
Grades XI and XII.....	16.6	16.6	16.7	16.8	16.9

* Based on a study of the age and grade of the two oldest children attending school. Age is as of last birthday and grade as of the time of the survey. Occupational classifications are as of the time of the survey.

ing that a child started school at the age of six and was able to pass one grade each year, at the age of eight he would be in Grade III,

at nine in Grade IV, etc. By the use of this age and grade comparison for each child from eight to sixteen years of age, it was found, as shown in Table 1, that the children of persons classified as professional workers, proprietors and managers, and clerks had reached the "standard" grade or higher in larger proportions than had the children from families in other occupational classifications. The children of farm operators and of skilled and semiskilled workers were about evenly matched for second place. Following these were the children of unskilled laborers, whose percentages in "standard" grades or higher were much below those of children of farm operators and skilled and semiskilled workers. Last, and lowest by a great deal, were the children of farm laborers.

This difference in school achievement between children of different occupational groupings is also clearly shown in the data in Table 1 setting forth the average ages in each school grade of the children of "white-collar" workers, skilled and semiskilled workers, farm operators, unskilled laborers, and farm laborers. In addition to reinforcing the inter-occupational comparison, this tabulation shows that the age-grade differential is greatly reduced as one passes from the lower to the higher grades. Farm laborers' children in Grade III were 1.5 years older than the children of "white-collar" workers, while in Grades XI and XII the difference was only 0.3 of a year.

RELATION OF AGE-GRADE STATUS TO FORMER RESIDENCE MOBILITY, AND TIME OF ARRIVAL IN ARIZONA

Table 2 shows that significant regional differences existed in the proportions of the children in school reported in the "standard" grade or higher. Children coming from the Middle Western states surpassed those from the Western and the West South Central states in practically every instance, when grouped by age and grade in school. For example, more than 45 per cent of the children twelve years of age who came from the Middle Western states were in Grade VII or higher. Among children from the Western states who were twelve years of age, 39 per cent were in Grade VII or higher, while among those from the West South Central states only 22 per cent had reached Grade VII or a grade higher.

In order that occupational differentials might be controlled in

these regional comparisons, all children of the farm operators and the farm laborers were separated from children of other occupational groupings and classified on the basis of age and school grade. The regional differences in the grade attained in school by children in each age classification still stood out. Children from the Middle West surpassed those from the Western and the West South Central states. It was significant, as will be shown later, that children from the Pacific states, largely California, as compared with children from

TABLE 2

PERCENTAGE OF TWO OLDEST CHILDREN OF FAMILY ATTENDING SCHOOL WHO ARE IN "STANDARD" GRADE, CLASSIFIED BY REGION OF RESIDENCE IN 1930 BY NUMBER OF STATES IN WHICH FAMILY HAS LIVED SINCE 1930, AND BY YEAR OF ARRIVAL IN ARIZONA

AGE AND GRADE IN SCHOOL	REGION OF RESIDENCE IN 1930			NUMBER OF STATES IN WHICH FAMILY HAS LIVED SINCE 1930				YEAR OF ARRIVAL IN ARIZONA*		
	Middle West	West	West South Central	Two	Three	Four	Five or More	1930-33	1934-36	1937-40
Age 8, Grade III or higher...	55.5	50.3	39.7	48.1	45.3	35.3	36.2	50.0	46.2	67.1
Age 9, Grade IV or higher...	48.6	48.9	32.0	42.3	39.0	41.4	47.1	48.8	43.9	37.1
Age 10, Grade V or higher...	56.1	47.3	30.8	41.5	36.4	41.2	37.5	52.6	38.7	36.0
Age 11, Grade VI or higher...	54.7	42.2	24.3	37.5	34.1	33.9	23.7	48.1	34.5	31.4
Age 12, Grade VII or higher...	45.5	39.2	22.1	32.7	28.7	33.0	35.2	41.7	30.2	29.5
Age 13, Grade VIII or higher...	48.6	43.2	19.0	34.7	29.8	26.0	23.6	34.9	33.3	29.3
Age 14, Grade IX or higher...	48.1	43.2	19.0	36.9	30.6	22.4	22.1	39.6	29.8	37.3
Age 15, Grade X or higher...	48.7	44.3	16.7	36.6	26.3	25.0	22.9	37.3	30.8	30.1
Age 16, Grade XI or higher...	49.3	44.5	24.0	39.1	33.2	41.5	28.7	43.2	32.7	37.8

* A total of 14,980 children was classified, 2,837 of whom arrived during 1930-33; 5,028 during 1934-36; and 7,115 during 1937-40.

the Mountain states made the poorer showing in six of the nine age comparisons. Apparently the effects of return migrations of farm laborers, originally from the West South Central states, were thus indicated.

Mobility bore some relation to the attainment of children in school. Families were classified according to the number of states in which they had lived, and comparisons were made of the grades attained by the children ranging in age from eight to sixteen in the different classifications. Table 2 indicates that on the whole the children whose parents had lived in not more than two states fared the best in grade attainment. Children who were eight, eleven, thirteen, fourteen, and fifteen years old were in the "standard" grade or higher

to an extent that was inversely related to the number of states of residence. This correlation was not so clear in the case of children who were nine, ten, twelve, and sixteen years of age. It should be remembered, however, that relatively high mobility was a characteristic of professional persons as well as of farm laborers¹ and that the presence of their children among those of high mobility would affect the results of this tabulation.

The similarity of these occupational classes with respect to the mobility of the family and their dissimilarity with respect to the school attainment of the children illustrate the difficulty of drawing conclusions from variations in one conditioning factor only. As has been shown elsewhere,² however, there was greater intra-county and intercommunity mobility among laborers than among professional persons. This mobility necessitated changes from school to school and thus partly explains the retardation of laborers' children as compared with those of professional persons, whose local mobility was much more restricted.

Another comparison was made on the basis of the year in which the family arrived in Arizona. Table 2 shows that children were in the "standard" grades or higher according to age in lesser proportions as one passes from the earlier to the later years of the decade represented. Among nine-year-old children, for example, those who came to Arizona during 1930-33 were in Grade IV or higher in 49 per cent of the cases; those who came during 1934-36, in 44 per cent of the cases; and those who came during 1937-40, were in the "standard" grade or higher only to the extent of 37 per cent.

Since it was known that larger proportions of the families arriving during 1937-40 were of the farm-laborer class than was the case with those arriving earlier, the greater retardation of children among late arrivals was not surprising. However, it may be said that the earlier arrivals probably had an advantage in this comparison because the added years of experience in the schools of Arizona gave them more opportunity to adjust to the system and to catch up and take their places in "standard" grades or higher. Probably teachers and prin-

¹ Varden Fuller and E. D. Tetreau, *Volume and Characteristics of Migration to Arizona, 1930-39*, Table 4. Bulletin No. 176. Tucson, Arizona: Arizona Agricultural Experiment Station, November, 1941.

² *Ibid.*, Table 10.

cipals in the local schools did the best they could, all things being taken into consideration, to place all incoming pupils in the grades in which they would do the most satisfactory work. Farm laborers' children who entered late during the school term and were already far retarded were, doubtless, difficult to classify, but there is no reason to believe that they were victims, to any extent, of teaching and administrative discrimination.

COMPARISON OF MIGRANT CHILDREN IN ARIZONA
AND CALIFORNIA

Table 3 gives a comparison of the school grades and ages of children in school in Arizona and California whose parents had arrived in these states subsequent to January 1, 1930. For most ages, more

TABLE 3
OLDEST CHILDREN IN SCHOOL WHO WERE IN
"STANDARD" GRADE OR HIGHER IN
ARIZONA AND CALIFORNIA

AGE OF CHILDREN	PERCENTAGE OF CHILDREN IN "STANDARD" GRADE OR HIGHER	
	Arizona	California
8.....	46.2	43.8
9.....	42.2	38.9
10.....	41.6	39.5
11.....	36.2	37.4
12.....	32.4	34.2
13.....	32.3	35.4
14.....	32.8	29.7
15.....	31.8	29.8
16.....	37.6	31.9

of these children were in the "standard" grade or higher in Arizona than in California. This was true in the case of children aged eight, nine, ten, fourteen, fifteen, and sixteen. California children of the ages of eleven, twelve, and thirteen exceeded Arizona children in grade attainment. Since Arizona children included in this survey came from farm laborers' families to a greater proportional extent than did California children, Arizona schools were doubtless at a disadvantage in placing incoming children in the school grade appropriate to their ages, because many children from farm laborers' fami-

lies were retarded. Nevertheless, the better showing of migrant children in Arizona seems to bear out the point that Arizona school people did as well as might reasonably be expected in placing the migrant children to their advantage.

The extra burdens which fell on the schools because of the differences in school achievement of pupils from the various occupational levels tended to be concentrated in certain counties of the state. Since it was known that a high percentage of migrants in Pinal, Yuma, Graham, and Maricopa counties were farm laborers,¹ it was not surprising to find in these counties higher percentages of pupils from migrant families whose grades were not up to "standard" according to age. In contrast, Pima County led all counties in the school achievement of its pupils from migrant families. Thus it appears that the impact of incoming children probably had rather widely differing effects on the schools of the several counties.

SUMMARY COMMENTS

These comparisons indicate that the large factors most closely associated with school achievement were the occupation of the head of the family and the region of origin, that is, the region in which the family lived in 1930. Mobility and time of arrival in Arizona were less closely though unmistakably associated as well.

It may be seen, then, that the pupils of migrant families have fitted themselves into the scheme of things, as represented by Arizona's public-school system, with varying degrees of success. Some held their places in the grades that were suitable to their ages, a few moved ahead, many lagged, and others fell far behind. Needless to say, many dropped by the wayside as a result of continued and increased retardation. Numbers of these children failed to appear in the high school at all, and others remained in high school for only a short time.

Doubtless this study would be worth while were its only outcome the rather trite conclusion that the position of the pupil in the school system was clearly related to the migrant family's position in the community. Such a result, on the face of it, would turn one's attention to the essential character of an underlying structure in which

¹ *Ibid.*

the individual's position was predetermined, in which he who desired to move upward would meet with little or no success in overcoming the downward pull of the system within the limits of which he was obliged to carry on. Had the migrant families come from certain regions only, such a conclusion might be defended.

The results of this study go further than that. Pupils from some regions of the United States made a much more satisfactory showing in the schools of Arizona than did those from other regions—and that without regard to occupational level. This result tends to shift the occupational position of the family in the community to a place of secondary importance in its effect on the position of the pupil in the school. Apparently the effectiveness of the school as an equalizer of opportunity varies from region to region. Thus the school itself appears to assume the role of a major factor in determining the achievement of the pupil.

If, for a moment, we center attention on the school and school system, the solution of the problem of exceedingly diverse results in school achievement seems to lie largely in the hands of the school man. The school itself may remedy those shortcomings which result in the poor showing of hundreds of children. Most certainly the importance and the far-reaching influence of the school man and the school system need not be passed over in this analysis. They should rather be emphasized.

We cannot, however, stop with the school. Back of the schools and the school systems of a region lies the larger scheme of things, in the midst of which schools and other institutions have developed. If a child's access to school privileges and his progress in the school organization are considerably determined by the family's position in the community, then it is difficult for any institution to run its affairs counter to that current. After all, the schools themselves are rooted in the community's life, and strong indeed must be the social movement which can effectively change the basic character of the community. On the other hand, if a child's position in the school's grade structure is determined by personal merit and by an equalization of opportunity such as the American school system is designed to bring to pass, one may be certain that the roots of this free school system are nourished by the life and character of a free and progressive community.

SAFETY PATROLS IN ELEMENTARY SCHOOLS

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THE widespread use of elementary-school safety patrols and the reduction in the number of deaths and injuries of school children since 1922 seem to indicate that the safety-patrol movement is an unqualified success. However, both school administrators and laymen frequently question the value of school safety patrols. Because a difference of opinion exists with regard to the value of school safety patrols as they are at present organized and conducted, there is a need for information about the patrols which will be helpful to those persons responsible for the safety of the school child.

This article reports the results of a survey of practices pertaining to safety patrols in a representative group of elementary schools. Although the questionnaire used in obtaining the information was lengthy and detailed, only those items considered of basic importance are discussed here. The names and locations of 285 representative elementary schools maintaining safety patrols were obtained through a letter addressed to the state educational authority in each of the forty-eight states. Replies were received from 167, or 59 per cent, of the 285 schools. Table 1 shows the results of replies to certain questions pertaining to the organization and work of safety patrols.

ORGANIZATION AND WORK OF THE PATROL

Membership and organization of patrols.—Since 83 per cent of the schools state that patrol members are appointed and 35 per cent indicate that they are elected, it is readily obvious that many schools employ a combination method of appointing and electing members for safety-patrol duty. In view of the common criticism that patrol duty consumes time needed for scholastic work, it would seem that

TABLE 1

DATA OBTAINED FROM 167 SCHOOLS WITH REGARD TO ORGANIZATION AND WORK OF SAFETY PATROLS

	Number of Schools	Percentage of Answers to Question
Membership and organization:		
Patrol members are appointed.....	111	83
Patrol members are elected.....	29	35
National Safety Council's rules for operation are followed.....	95	73
Patrol officers are employed.....	133	88
Officers are provided with special equipment.....	110	83
Scholarship is a basis for selecting patrol members.....	87	61
Activities of safety patrol and of Junior Safety Council are closely correlated..	67	58
City ordinance permits patrols to control vehicular traffic.....	26	19
Deputized janitors or guards are used in addition to patrol.....	23	15
Sex of patrol members in 155 schools reporting:		
Boys only.....	110	71
Boys and girls.....	43	28
Girls only.....	2	1
Grade from which patrol members are selected in 167 schools reporting:		
Grade II.....	1	1
Grade III.....	5	3
Grade IV.....	26	16
Grade V.....	79	47
Grade VI.....	125	75
Grade VII.....	60	36
Grade VIII.....	51	31
Factors other than scholarship considered in selecting patrol members in 119 schools reporting:		
Dependability.....	46	39
Good citizenship.....	41	34
Ability to lead or direct.....	32	27
Natural fitness.....	11	9
Team work.....	11	9
General attitude.....	9	8
Size.....	9	8
Character.....	8	7
Behavior.....	7	6
Courtesy.....	7	6
Personality.....	7	6
Age.....	6	5
Health.....	6	5
Sense of responsibility.....	6	5
Others.....	37	31

TABLE 1—Continued

	Number of Schools	Percentage of Answers to Question
Types of equipment provided patrol mem- bers in 153 schools reporting:		
Sam Browne belt.....	140	92
Badge.....	121	79
Raincoat.....	72	47
Flag.....	43	28
Whistle.....	37	24
Cap.....	15	10
Sign.....	13	8
Rain hat.....	5	3
Mittens.....	5	3
Boots.....	4	3
Other kinds.....	35	23
Agency providing equipment in 153 schools reporting:		
Partly by school.....	36	24
American Automobile Association.....	36	24
Local safety council.....	29	19
Entirely by school.....	23	15
Service clubs.....	21	14
Parent-teachers' association.....	12	8
American Legion.....	10	7
State.....	10	7
Local police.....	9	6
Funds raised by pupils.....	5	3
State police.....	4	3
Others.....	13	8
Duties of patrol members in 157 schools re- porting:		
Assist pupils in crossing streets near school	150	96
Report offenders to principal or to adult in charge of patrol.....	139	89
Instruct pupils in safety in crossing streets	108	69
Supervise pupils in entering and leaving school building.....	63	40
Direct pedestrian traffic within school building.....	51	32
Control and direct vehicular traffic.....	43	27
Supervise loading and unloading of busses	28	18
Supervise playground.....	18	11
Others.....	45	29
Times when patrol members are on duty in 157 schools reporting:		
Afternoon at close of school.....	143	91
Noon dismissal.....	135	86
Morning before school opens.....	128	82
Recess.....	41	26
Dismissal of lower grades.....	12	8
Excursions.....	10	6
Special occasions.....	5	3
Fire drill.....	4	3
Others.....	7	4

TABLE 1—*Continued*

	Number of Schools	Percentage of Answers to Question
Persons responsible for supervision in 153 schools reporting:		
Principal directly.....	40	26
Classroom teacher directly.....	21	14
Police and teacher.....	20	13
Principal and classroom teacher.....	18	12
Police, teacher, and principal.....	17	11
Principal and police.....	11	7
Principal, police, and safety co-ordinator.....	7	5
None listed.....	5	3
Physical-education teacher.....	3	2
Others.....	11	7
Method of handling liability for accidents to patrol members in 100 schools reporting:		
Parents' consent.....	37	37
No official action taken.....	26	26
No danger.....	8	8
No knowledge.....	5	5
School carries insurance.....	4	4
Same as athletics.....	3	3
No liability in state.....	3	3
Others.....	12	12
Community relationships of safety patrol:		
Community generally approves.....	150	99
Some groups within community oppose the patrol.....	15	11
Written permission of parents required for patrol members to participate.....	86	57
Some parents refuse to give written permission.....	20	22
Patrol is approved by local police.....	141	98
Patrol is approved by motorists.....	124	98
Patrol is approved by state police.....	122	98

a greater percentage of schools should make scholarship a basis for selecting members.

In only about a fifth of the cities in which the schools are located is there a city ordinance permitting school safety-patrol members to control vehicular traffic. While lawful permission from the city is desirable in cases where patrol members control and direct traffic, it is not usually recommended that safety-patrol members be granted this permission.

Fifteen per cent of 149 schools answering the question use deputized school janitors or guards in addition to safety patrols.

A number of schools use both boys and girls for patrol duty, and two schools use girls only.

The table shows that the greatest number of schools select the patrol members from Grades V, VI, and VII. This practice is in harmony with the recommendations of the National Safety Council.

Factors influencing selection of members.—The main factors other than scholarship considered in the selection of safety-patrol members in the 119 schools reporting are dependability, good citizenship, ability to lead or direct, natural fitness, and team work. Other factors are mentioned less frequently than these five. It is apparent that a large number of the factors considered in the selection of safety-patrol members are overlapping in meaning.

Number of patrol members.—In answer to the question, "What is the average yearly number of patrol members?" replies were received from 151 schools. The yearly number of patrol members ranges from 1 to 180, with an average of 22. The average is not particularly significant, however, because the schools differ in size and in the need for patrols.

Equipment.—Only two items of equipment are used by as many as half of the schools, namely, Sam Browne belts and official badges. It is disappointing to find that only 47 per cent of the schools furnish raincoats for patrol members. Since the patrol members must serve in all kinds of weather, the desirability of supplying all patrol members with raincoats would seem to be self-evident. The percentage of schools reporting the use of flags and whistles is particularly significant in view of the fact that the use of these signaling devices by patrol members is usually not recommended.

Agencies providing equipment.—The data on the agencies providing equipment for patrol members in 153 schools show that only about two-fifths of the schools provide all or part of the equipment. Although the practice of accepting the aid of outside organizations in supplying the equipment for patrol members may be desirable in some cases, it would seem that the schools should take greater responsibility in providing this equipment. One of the criticisms of safety patrols in schools is that outside organizations attempt to assist and sponsor the patrols. If outside agencies provide equipment,

they are likely to expect to have some influence in the organization and the direction of the patrols in the schools.

Duties of safety-patrol members.—The main duties of safety-patrol members are to assist pupils in crossing streets near the school, to report offenders to the principal or to the adult in charge of the safety patrol, and to instruct pupils in safety in crossing streets. Some patrols have duties in or around the school building and on the playground.

Attention should be called to the fact that in more than a fourth of the schools safety-patrol members control and direct vehicular traffic. This practice is not in harmony with the recommendations of the National Safety Council and leaders in the field of safety.

Time on duty.—The periods at which the safety-patrol members are on duty were reported by 157 schools. As would be expected, the chief periods are at the time of the afternoon and the noon dismissals and the time before the morning opening. A few schools report other periods when the patrol members serve.

The question was asked, "What is the approximate number of minutes missed from classes each day by patrol members?" The time lost by patrol members varies from none to ninety minutes, with an average of approximately twelve minutes. The average appears not to be excessive, but in some schools the time missed from classes seems somewhat extreme.

Supervision and training of safety-patrol members.—An important part of the safety-patrol work in schools is the preliminary training given to those pupils composing the patrols. Forty-four per cent of 147 schools replying to this item indicate that patrol members receive a preliminary period of training, which ranges from one day to continuous training throughout a full semester. Sixty-four schools indicated the persons who train patrol members, and in 23 per cent of the schools older boys are responsible for the period of preliminary training; in 16 per cent the principal is responsible; and in 14 per cent the principal and a police officer are jointly responsible. In the remaining schools various other persons and agencies perform this duty.

The persons responsible for the supervision of safety patrols in

153 schools are indicated in Table 1. It is evident from the results that many combinations of plans are used for the direct responsibility and supervision of safety patrols in these schools.

In reply to the question, "Are safety-patrol members punished for neglect of duty?" 79 per cent of the replies indicate that there are punishments for neglect of duty. In reply to the question, "Are rewards given?" 69 per cent state that rewards are a part of the safety-patrol program. The punishments administered to offending patrol members as indicated by 141 schools are such as the following: removal from duty, suspension, temporary dismissal, lectures, demerits, and demotion. The rewards are certificates of merit, free tickets to entertainments and movies, picnics, trips, dinners, ball games, emblems, merits, parties, camping trips, and medals. No use of financial rewards is reported.

Liability for accidents to patrol members.—One of the primary purposes of the school safety patrol is to assist in preventing accidents to school children. Even though patrol members do not, in the majority of the schools, direct vehicular traffic, they are subjected to certain hazards, largely those resulting from weather conditions and from vehicular traffic. It is gratifying to note that only three of the 151 schools from whom replies were received state that patrol members have been injured in line of duty. The question was asked, "Has your school or have any of your teachers ever been involved in a lawsuit due to injury to a patrol member?" One hundred and forty-eight replies were received to this question, and not one school has been involved in such a lawsuit.

There is frequent misunderstanding regarding liability for accidents to patrol members. Data in Table 1 show the ways of handling liability used by a hundred schools supplying information on this point. Only a little more than a third of the schools secure the parents' consent, while about a fourth indicate that no official action has been taken. Eight per cent state that there is no danger in the matter of liability. These data indicate clearly that there is widespread misunderstanding regarding the liability for accidents. The written consent of parents for pupils to serve on patrol duty does not relieve the school personnel of liability for accidents to patrol members, particularly in cases of negligence, and yet obtaining this

consent is the method most often mentioned as a means of protecting the school against liability. At the present time four states (Minnesota, New Jersey, Pennsylvania, and Wisconsin) have enacted legislation relieving schools and teachers of liability for accidents to patrol members. Except in these four states there is a very definite problem in the matter of liability for accidents to safety-patrol members.

Relationships of safety patrol to the community.—Data in Table 1 indicate that communities generally approve of the safety patrols, although certain community groups oppose the patrols in about a tenth of the schools. Some of the reasons given for the opposition are: the undesirability of the governing of children by children, giving children too much responsibility, the loss of time from classes, the exposure of the children to the elements, the placing of too much authority on children, and the great risks to the patrol members. Other reasons given reflect jealousy, resentment, and supposed discrimination among the children. In practically all cases the local and state police and the motorists approve the school safety patrols.

VALUES AND RESULTS OF THE PATROL

In an attempt to secure an evaluation of safety patrols within the schools, the persons filling in the questionnaires were asked to rate certain phases of the patrol work on the following basis: (1) indispensable, (2) valuable, (3) helpful, (4) ineffective, and (5) harmful. The classifications for rating are the same as those used by the National Education Association in a study of safety education in schools.¹ The results of the ratings on certain phases of the safety-patrol program are shown in Table 2. Three-fourths or more of the schools rated the safety patrol as "valuable" or "helpful" in the protection of children against traffic accidents, as an aid in the safety education of the student body, and as a method of developing the proper attitude toward safety. Those rating the safety patrol as "indispensable" in these fields range from 14 to 26 per cent.

In past years national safety organizations have provided leader-

¹ *Safety Education through Schools*. Research Bulletin of the National Education Association, Vol. XVI, No. 5. Washington: Research Division of the National Education Association, 1938.

ship in safety in the public schools. Eighty-eight per cent of the respondents to the questionnaire gave a rating of "valuable" or "helpful" to the national safety organizations in their work with school patrols.

TABLE 2
NUMBER AND PERCENTAGE OF RATINGS GIVEN BY 167 ELEMENTARY SCHOOLS ON VALUE AND RESULTS OF CERTAIN PHASES OF SCHOOL SAFETY PATROL

Rating	Number	Per Cent
Given patrol as protection to children against traffic accidents:		
Indispensable.....	40	26
Valuable.....	78	51
Helpful.....	34	23
Ineffective.....		
Harmful.....		
Given patrol as aid in safety education of the student body:		
Indispensable.....	22	15
Valuable.....	84	55
Helpful.....	44	29
Ineffective.....	2	1
Harmful.....		
Given patrol as a method of developing proper attitude toward safety:		
Indispensable.....	23	15
Valuable.....	86	57
Helpful.....	41	27
Ineffective.....	1	1
Harmful.....		
Given patrol as a method of developing desirable habits and skills of student body in traffic safety:		
Indispensable.....	22	14
Valuable.....	91	60
Helpful.....	38	25
Ineffective.....	2	1
Harmful.....		
Given national safety organizations in relation to patrols and safety organizations in the school:		
Indispensable.....	11	9
Valuable.....	57	44
Helpful.....	57	44
Ineffective.....	4	3
Harmful.....		

Table 3 reveals the results of replies to questions pertaining to the values of safety patrols for the pupils concerned. Fifty per cent of those responding think that the patrols cause pupils to form habits of depending on help in crossing streets, although only 6 per cent think that this habit is likely to be a handicap in situations where pupils do not have such assistance. Ninety-three per cent of those responding state that they consider the patrol an asset to the school

TABLE 3
NUMBER AND PERCENTAGE OF AFFIRMATIVE REPLIES TO
QUESTIONS PERTAINING TO VALUES AND RESULTS
OF SCHOOL SAFETY PATROL

Question	Number of Schools	Percentage of Answers to Question
Do the pupils form habits of depending on help in crossing streets because of the assistance of patrol members?.....	73	50
Is this likely to be a handicap to them in situations where they do not have assistance in crossing streets?.....	7	6
Do you consider the patrol an asset to your school beyond a question of doubt?.....	142	93
Do you think patrol members should direct and control vehicular traffic?.....	42	29
Are the patrols readily accepted by the student body?.....	147	99
Is it considered an honor to be a member?..	147	99

beyond a question of doubt. Seventy-one per cent feel that patrol members should not direct and control vehicular traffic. In practically all schools the patrols are readily accepted by the student body, and the pupils consider it an honor to be a member of the safety patrol.

CONCLUSION

The findings of this survey indicate that the school safety patrol is a valuable adjunct to the school organization and that communities in general approve of the patrols. The qualities considered in the selection of the patrol members, such as dependability and good citizenship, and the fact that most members are chosen from Grade V or above would indicate that the patrol might serve, and probably

does serve, as an effective means of training character and of developing an appreciation of community service in children of pre-adolescent and early adolescent ages. This opportunity might well be offered to girls more often than it now is.

Since the patrol members are required to serve in all kinds of weather, they should be provided with raincoats, rain hats, and rubber boots or overshoes and, in cases of need, with warm clothing as well. The almost complete approval given the safety patrol should make it possible for all the necessary equipment to be supplied by the schools without financial assistance from outside agencies.

More consideration should be given to the question of liability for accidents to members of the school safety patrol. Possibly the educational associations and the national safety organizations should press in all states for legislation which would specifically relieve the school and the staff from liability for accidents to patrol members. Further, it should probably be a definite rule that the patrol members should not be allowed to control vehicular traffic.

READING BEFORE THE EYE-MOVEMENT CAMERA VERSUS READING AWAY FROM IT

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EYE-MOVEMENTS are objective symptoms of what goes on in the central nervous system and as such are uniquely valuable for investigations in the realm of educational psychology. Early studies in both Europe and America employed crude instrumentation and techniques; nevertheless they were important in revealing facts which presented a new and significant picture of the processes involved in reading. Present-day photographic apparatus is highly refined, and techniques are much improved. However, technical problems of primary importance still call for investigation.

From time to time a question has arisen regarding the probability that reading before the camera will follow a normal course. To most pupils the experience of being photographed while reading comes as a novelty. Is the novelty sufficient in extent or in kind to distort the normal psychological processes?

A study has recently been reported on learning to spell before the camera and learning to spell away from it.¹ Fifty-five fourth- and fifth-grade pupils studied five difficult words during photography and five equally difficult words at a table. Rotation was used both with word groups and with order of study. The findings showed no significant differences either in average study time or in spelling improvement.

The present article reports a similar study in the field of reading. The subjects were forty-seven fifth-grade pupils of the Whittier-

¹ Luther C. Gilbert and Doris Wilcox Gilbert, *Training for Speed and Accuracy of Visual Perception in Learning To Spell*. University of California Publications in Education, Vol. VII, No. 5. Berkeley, California: University of California Press, 1942.

University Elementary School in Berkeley, California. The school faculty has a wholesome attitude toward educational research, and it is reflected in fine co-operation on the part of the pupils. The experimenters explained the general nature of the investigation without giving away its specific purpose. Pupils were welcomed by name when they came to the room being used as a laboratory, and, as they left, they were thanked for their participation. They took part willingly, and a few who were not summoned confronted the investigators in the halls and asked when their turns would come.

Kuhlmann-Anderson intelligence quotients were available for all but three of the subjects. A distribution of these pupils according to intelligence quotient is given in Table 1.

TABLE 1
DISTRIBUTION OF FORTY-FOUR SUBJECTS ACCORDING
TO INTELLIGENCE QUOTIENT

Intelligence Quotient	Number of Pupils	Intelligence Quotient	Number of Pupils
151-160.....	1	91-100.....	2
141-150.....	.....	81- 90.....	3
131-140.....	1	71- 80.....	4
121-130.....	10	Total.....	44
111-120.....	13		
101-110.....	10		

Scores from a number of standardized reading tests were also available but, for the sake of brevity, are not reported here. They, like the intelligence-test scores, showed wide ranges of performance within the group.

Comparable sections of the Iowa Silent Reading Tests, Elementary Test, Forms Am and Bm, were used. Some pupils read the selections "Slate" and "Life in a Castle in the Olden Times" before the camera, and "Sugar Cane" and "Storming a Castle in the Olden Times" at a table near by. Others reversed the selections. Some read first at the camera and later at a table; others read first at a table and later at the camera. Reading time was clocked by means of a stop watch. Although timing by a stop watch is not, perhaps, so accurate as timing by photographic analysis, it was employed be-

cause it could be used equally well for both types of reading. Whatever the amount of the error, it is approximately the same for all readings.

The camera with its adjustable chair was made in Chicago through the courtesy of the authorities at the University of Chicago and is a modified form of the one in use there. Pupils were taken from the regular classroom and tested in a quiet office. The appropriate test questions were administered immediately after the reading of each selection.

In the table to follow, Group 1 consists of ten pupils who read at the table first, using Form Am selections there and Form Bm selections later at the camera. Group 2 is composed of twelve pupils who read at the camera first, using the Am selections first and the Bm selections at the table. Group 3 is composed of thirteen pupils who read at the table first using the Bm selections first and the Am selections later at the camera. Group 4 is composed of twelve pupils who read the Bm selections first at the camera and the Am selections later at the table.

Table 2 shows the total reading time for each group. The large standard deviations, both at the camera and at the table, indicate wide ranges in reading rates. All four groups averaged slightly more time at the table than at the camera. There is nothing in the data to explain these differences, and statistical treatment indicates that they were probably the result of chance. In no case does the actual difference between the average camera time and the average table time equal the probable error of the difference, much less exceed it by four times.

For each group the number of words read per minute is greater at the camera than at the table, but again the probable errors of the differences are so large in proportion to the actual differences that the inequalities cannot be regarded as statistically significant.

Table 2 also presents the reading scores. The relatively unselected character of the subjects is again apparent in the magnitude of the standard deviations. The average scores slightly favor reading at the table for three of the groups; for the fourth they indicate equally good performances at the table and before the camera. The better scores may result from the longer reading time. Inspection of the

data, however, shows that the differences in comprehension are never significant. While the actual difference of the means exceeds the probable error of the difference for Groups 2, 3, and 4, it does

TABLE 2

TOTAL READING TIME, RATE OF READING, AND READING SCORE
OF FOUR GROUPS WHEN READING AT A TABLE AND
BEFORE AN EYE-MOVEMENT CAMERA

MEASURE AND GROUP	MEAN		STANDARD DEVIATION		PROBABLE ERROR OF MEAN		DIFFERENCE IN MEANS	PROBABLE ERROR OF DIFFERENCE
	Reading at Table	Reading at Camera	Reading at Table	Reading at Camera	Reading at Table	Reading at Camera		
Number of seconds of reading time:								
Group 1.....	269.60	267.80	110.57	112.41	23.54	23.99	1.80	33.61
Group 2.....	243.83	229.92	84.86	87.37	16.55	17.03	13.91	23.75
Group 3.....	280.38	276.54	72.42	92.43	13.53	17.27	3.84	21.94
Group 4.....	316.08	295.42	94.62	107.23	18.45	20.90	20.66	27.88
All groups....	277.87	267.59	95.40	86.70	9.38	8.53	10.28	12.68
Number of words read per minute:								
Group 1.....	232.05	236.50	77.71	74.18	16.59	15.83	4.45	22.93
Group 2.....	259.77	276.96	100.80	113.62	19.65	22.15	17.19	29.61
Group 3.....	211.94	218.83	53.62	65.85	10.02	12.30	6.89	15.86
Group 4.....	188.56	212.33	55.34	72.77	10.79	14.18	23.77	17.82
All groups....	222.46	235.77	78.60	88.20	7.73	8.67	13.31	11.62
Reading score:								
Group 1.....	11.40	11.40	4.41	2.76	.94	.87	.....	1.28
Group 2.....	11.75	10.58	3.14	3.45	.61	.67	1.17	.91
Group 3.....	13.00	11.77	4.61	3.19	.86	.59	1.23	1.04
Group 4.....	11.58	10.58	3.25	3.21	.63	.63	1.00	.89
All groups....	11.98	11.09	3.88	3.22	0.38	0.32	0.89	0.50

not represent even twice the probable error, much less four times the error, as is necessary for true significance.

After the reading tests were concluded, the pupils were asked whether they preferred reading at the camera or reading at the table. Many of them had no preferences and had to be urged to respond. Because of this indifference and because of the introspective nature

of the replies, no statistical summary is attempted here. Of those who cared to express preferences, slightly more than half liked to read at the table because they were used to it, or because they could move around, or because they were conscious of the camera lights. Nearly as many preferred the camera because they could see better with the lights, or because they could read better when they could not look around, or because it was "more fun." No marked preferences or dislikes were reported in the entire group.

The findings of this study appear to corroborate those of the previous investigation in spelling. It will probably be conceded that serious distortions of the psychological processes involved in reading could not take place without affecting reading time and comprehension. With this group of fifth-grade pupils the conditions imposed by the photographic apparatus and technique brought about significant changes in neither rate nor understanding.

It may be argued that these findings result, in some measure, from the co-operative attitude of the subjects. The answer is that, with this as with other experimental techniques in education and psychology (testing, for example), the reliability of the data depends in large measure on the willingness and the interest of the subjects. If head and chin rests are necessary to restrict head-movement, if camera lights are essential to clear photography, etc., then it is particularly important to make sure that the subjects are not working under protest. Establishing *rapprochement* is not merely legitimate; it is essential.

THE ABACUS IN THE TEACHING OF ARITHMETIC

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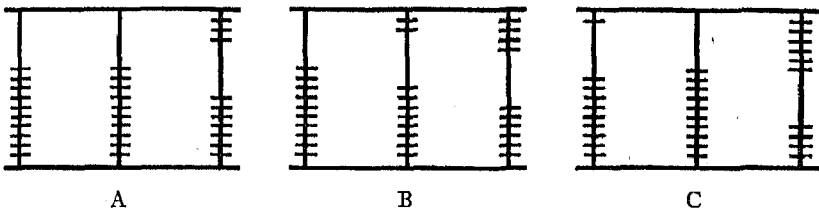
FOR over a thousand years the abacus was an indispensable part of the equipment of arithmeticians. However, with the adoption of the Hindu-Arabic numerals by Western people, the abacus was discarded as a means of calculating. Its only place in the schools was that of a plaything. Recent arithmetic books, for example, *Daily-Life Arithmetics*,¹ have again included the abacus in arithmetical instruction, using it this time to show a historical phase of arithmetic. This use of the abacus is excellent although there is doubt that full advantage of its historical possibilities is taken. For example, nearly every modern person has a feeling that the Romans were much handicapped because it is so difficult to do our type of computation with Roman numerals. Such conclusions are, of course, invalid because few Romans made calculations in that way; they used the abacus. A little work with an abacus will demonstrate that in addition and subtraction the Roman method is, in some ways, superior to our pencil-and-paper methods. Multiplication and division are, of course, not so easily performed on the abacus as with our pencil-and-paper methods. The abacus can be used, then, not merely to show something the Romans used, but also to show the advantages and the disadvantages that these people had in calculating. In a similar way the abacus can be used to show how the Chinese and the Japanese calculate. These uses of the abacus, however, are relatively minor as compared with its other uses in teaching arithmetic.

One of the outstanding features of our modern system of arithmetic is its use of the idea of place value; that is, that the value of any number depends on its position. Another important phase of modern arithmetic is its emphasis on, and use of, the collection idea

¹ Guy T. Buswell, William A. Brownell, and Lenore John, *Daily-Life Arithmetics*, Book I, p. 487. Boston: Ginn & Co., 1938.

of number. The idea is that tens, hundreds, etc., are handled in thought as easily as ones if we think of them as collections. Both these phases of number can be adequately demonstrated with the abacus.

For teaching purposes a much simpler abacus than the one used by modern Chinese and Japanese should be employed. Those used in Grades II and III at the State University of Iowa Elementary School consisted of only three rows. These abacuses were constructed from the wire of a coat hanger and wooden beads from the ten-cent store. On the first day that the abacus was used, the teacher told the children that she would record their answers to oral problems on the bead-counter (abacus). After several quantities had been



recorded, a discussion of the abacus took place. As soon as a few children had grasped the principles governing the representation of numbers or quantities, they were given an opportunity to demonstrate how quantities are shown on the abacus. The method of representation used is as follows: To show ones, the appropriate number of beads on the right-hand wire are moved up; to show tens, the beads on the middle wire are moved up; and to show hundreds, beads on the left-hand wire are moved up. For example, in Diagram A the quantity 3 is represented, in Diagram B the quantity 24 is shown, while in Diagram C the quantity 106 is shown.

Study of the method and principles involved in the representation of quantities on the abacus will reveal that five important characteristics of arithmetic are admirably demonstrated.

First, markers (beads) can be used to represent various concrete objects—one of the first steps in the long road that the child must travel in going from the concrete to the abstract. The child, like primitive man, has trouble in grasping the idea that a symbol,

such as "four," can be applied to many things. The symbol (name) "four" was probably first a name for the fourth finger. On the abacus the child uses the same four beads to show four books, four days, or four boys. Through the use of the beads the child can see the "four" (for the four days) and yet does not have to burden his mind with all the associations that accompany the thought of "four days." It should be remembered that the service which numbers offer to man is primarily the economy of thought resulting from the substitution of numbers for the real object considered. The chief task of the school arithmetic program is to help the child secure an understanding of these efficient abstract uses of number. This understanding can be greatly facilitated by use of significant steps between the concrete and the modern symbols. The abacus, as shown in the preceding discussion, provides one of these steps.

A second characteristic of our number system illustrated by the abacus is the fact that the value of a number depends on its position—the idea of place value referred to earlier. The beads on the second wire are exactly like those on the first wire; yet, because they are in a different position, they represent tens and not ones, as is true of the beads on the first wire. In the case of a number like 11 , written on the board or on a piece of paper, explanation of the term "position" is very difficult. Consider how much more easily position can be explained on the abacus.

Closely associated with the ideas discussed in the preceding paragraphs is a third characteristic of our number system that the abacus can be used to illustrate, namely, the idea of a place-holder or the function of zero. If children were asked to record with numerals what the abacus represents in Diagram C, the need for some symbol to keep the hundreds and units separated would be quite apparent. Notice that zero then does not represent a quantity but has the very important function of holding a place.

A fourth characteristic of our number system illustrated by the abacus is the idea of collection. The fact that a single bead stands for ten makes it as easy for the child to show and see ten as it is for him to show one. In fact, in all his work with the abacus the child must handle tens and hundreds just as he handles ones. As children show different amounts, like 43 , 61 , and 452 , on the abacus, they are

almost forced to think for 43, "four tens and three ones"; for 452, "four hundreds, five tens, and two ones."

A fifth use of the abacus in teaching is to illustrate the true nature of carrying and borrowing. As was stated earlier, the processes of addition and subtraction are easily performed on the abacus. For example, $23 + 14$ is done by first moving up two tens' beads and three ones' beads to show the 23; then one more tens' bead is moved up for the ten in 14, and four more ones' beads are moved up for the four ones in 14. When, however, the example involves carrying, the process is not so simple. Consider $27 + 14$. In this case there would not be enough ones' beads. For ten ones' beads, one tens' bead must be substituted. In other words, ten ones are changed to one ten and recorded on the tens' row. The process of borrowing is similarly illustrated. Consider $42 - 15$. The 42 is first shown on the abacus. Then an attempt is made to remove the appropriate number of tens and ones indicated by the subtrahend. After the two ones of 42 are removed, there are still three ones in the minuend. Obviously the only thing to do is to substitute for one of the tens' beads its equivalent of ten ones. The other three ones of the subtrahend are then removed, leaving seven ones. The ten of the subtrahend is then removed by dropping one of the three remaining tens' beads and leaving on the abacus two tens and seven ones.

The five different ways in which the abacus may be used to clarify various characteristics of our number system show that this device is an important teaching aid. On the basis of these alone, the abacus needs to be used as a part of the instructional program in arithmetic.

A VOCABULARY STUDY BASED ON 107 PRIMARY-GRADE BOOKS

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THIS article gives a brief report of a vocabulary study of twenty-one preprimers, twenty-one primers, twenty-one first readers, twenty-one second readers, and twenty-one third readers published in 1930-41, inclusive.¹ The study resulted in the formulation of an up-to-date graded vocabulary in primary-grade reading, in which the words appearing most widely are listed and graded on the basis of the trend of use of these words as new words in the series of readers and on the basis of data available from other sources.

These 107 primary-grade readers contain 5,314 different words, including 286 character names and 846 derivatives formed by adding to the base form *es*, *'s*, *d*, *ing*, *n*, *en*, *y*, *ie*, *ly*, *er*, or *est* or by changing *i* to *y* and adding letters so that the word ends in *ies*, *ied*, *id*, *ily*, *ier*, or *iest*. Several thousand of the words appear in only one, two, or three of the 107 books.

For each of the 5,314 words, the data assembled included: the number of preprimers, primers, first, second, and third readers in which the word occurs as a new word; the placement of the word in the Kindergarten Union list,² the Gates 1935 word list,³ Buckingham and Dolch's *A Combined Word List*,⁴ Berglund's fourth-grade vocab-

¹ The number of separate books examined was 107 because two of the primers and two of the first readers included a booklet for "Level 1" and "Level 2." The two levels were treated as one book because of the small vocabulary used.

² Child Study Committee of the International Kindergarten Union, *A Study of the Vocabulary of Children before Entering the First Grade*. Washington: International Kindergarten Union, 1928.

³ Arthur I. Gates, *A Reading Vocabulary for the Primary Grades*. New York: Teachers College, Columbia University, 1935 (revised and enlarged).

⁴ B. R. Buckingham and E. W. Dolch (compilers), *A Combined Word List*. Boston: Ginn & Co., 1936.

ulary,¹ and Durrell's selected vocabulary for Grade IV.² In addition, each word was allocated among ten levels as follows: *preprimer*, important words for introduction during the preprimer stage; *preprimer or primer*, words less important for the preprimer stage but important for introduction by the end of the primer stage; *primer*, important words for the primer stage; *primer or first reader*, words less important for the primer stage but important for introduction by the end of the first-reader stage; *first reader*, important words for introduction during the first-reader stage; *first or second reader*, words less important for the first-reader stage but important for introduction by the end of the second-reader stage; *second reader*, important words for introduction during the second-reader stage; *second or third reader*, words less important during the second-reader stage but important for introduction by the end of the third-reader stage; *third reader*, important words for introduction during the third-reader stage; *third or fourth reader*, less important words for the third-reader stage but important for introduction during the next stage above.

Only 2,164 of the 5,314 different words appear in a sufficient number of books to justify being included in the graded vocabulary. No character names were included. For the preprimer level all words appearing in seven or more of the twenty-one preprimers were allocated to that level. In connection with the last of the ten levels, the third- or fourth-reader level, less complete and detailed data are available than for the other levels. As a rule, if a word appears as a new word as many as three times below the fourth reader and is included in one of the fourth-grade lists, it was placed in the third- or fourth-reader level.

With the ten levels and the main criterion for level placement in mind, one can easily determine the level for most words appearing widely enough to be included. It was necessary in some cases to make a choice between two possible placements and in other cases to decide whether a word should be excluded entirely or placed in the third- or fourth-reader level.

¹ Distributed in mimeographed form by Winnetka Educational Press, Winnetka, Illinois.

² Donald D. Durrell, *Improvement of Basic Reading Abilities*, pp. 360-69. Yonkers-on-Hudson, New York: World Book Co., 1940.

For illustrative purposes let us consider a few samples of words. The word "able" appears in four second readers and in eleven third readers and, therefore, evidently belongs at the third-reader level. The word "above" appears in five second readers and in nine third readers and is in the first thousand of both the Kindergarten Union list and the Gates list. Consequently the word was assigned to the second- or third-reader level with the words which are less important for second readers but are important for introduction by the end of the third-reader stage. The word "aboard" is a sample of a word with no definite trend of placement. It appears as a new word in six

TABLE 1
DISTRIBUTION OF WORDS TO READING LEVELS

Reading Level	Number of New Words	Total
1. Preprimer.....	49	49
2. Preprimer or primer.....	56	105
3. Primer.....	76	181
4. Primer or first reader.....	102	283
5. First reader.....	112	395
6. First or second reader.....	213	608
7. Second reader.....	280	888
8. Second or third reader.....	328	1,216
9. Third reader.....	419	1,635
10. Third or fourth reader.....	529	2,164

books—at the primer level in one book, at the first-reader level in one book, at the second-reader level in two books, and at the third-reader level in two books. It appears in the second half of the second thousand of the Kindergarten Union list. In the present list it was assigned to the second- or third-reader level. In the case of the word "after," the fact that it is shown among the first five hundred words both in the Kindergarten Union list and in the Gates list and appears in four preprimers, as well as in ten primers, six first readers, and one second reader, seems to justify placing it in the preprimer or primer level.

The plan of levels determined on provides a flexible plan of gradation, which is a very important consideration, especially since no method of selection and gradation results in complete accuracy. The results shown in Table 1 accord with the generally accepted prin-

ciple that vocabulary growth in reading during the primary grades proceeds at an accelerating rate from stage to stage.

For lack of space it is not possible to include the titles of the 107 books utilized in this study. A previous article¹ presented the names of 20 of the 21 preprimers, the 100 most important words for the preprimer vocabulary, and a comparative vocabulary study of the preprimers. The complete graded vocabulary of 2,164 words, with the level of each word and the list of 107 books utilized, is now available in booklet form.²

One very clear conclusion to be made from a study of this kind is that independence in reading material of a level comparable with that of the typical new third readers of today requires a workable mastery of a relatively large vocabulary and that this large vocabulary cannot be introduced in the usual five-book series of primary-grade readers without a too heavy vocabulary load. The study also emphasizes the inadequacy of recently published expanded series with an undue restriction of vocabulary. For example, one series with three preprimers, two primers, two first readers, two second readers, and two third readers introduces only 1,147 different words. In methods and materials in primary-grade reading, we have tended to go to extremes, of which the present unjustifiable restriction of vocabulary is an example. We have the problem of providing for adequate vocabulary expansion along with the problem of providing sufficiently easy material at each level.

¹ Clarence R. Stone, "The Vocabularies of Twenty Preprimers," *Elementary School Journal*, XLI (February, 1941), 423-29.

² Clarence R. Stone, *Stone's Graded Vocabulary for Primary Reading*. St. Louis, Missouri: Webster Publishing Co., 1941.

THE PERSISTENCE OF EDUCATIONAL PROGRESS DURING THE DECADE OF THE CIVIL WAR. II

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THE first part of this article¹ gave data on school enrolments during the period of the Civil War and the early years of Reconstruction, which showed that education was not totally neglected during those trying days in our nation's history. This section of the article gives statistics on school incomes during the same decade.

INCOME OF THE SCHOOLS

The amount, the sources, and the distribution of income are also significant factors in judging the status of education in the states. These data are presented in Table 2. For 1860 the educational income per capita is computed, unless otherwise indicated, on the basis of the number of free persons; for 1870, on the basis of the number of persons in the entire population.

Per capita income for all types of schools.—The income per person in 1870 for all types of schools was \$2.47 as compared with \$1.26 per free person in 1860. In 1870 slightly more than half of the northern and two southern states had educational incomes larger than that of the nation as a whole. The incomes of nine southern states were less than the corresponding incomes per free person in 1860, when the South was, in this respect, generally superior to the North.

For the states of the South, the income per person ranged, at the close of the period, from 51 cents to \$2.56. In the North and the West (California with \$5.26 excepted) the range was from \$1.49 to \$3.93. The incomes of three New England states were less than the national average or the averages for Missouri and Maryland.

¹ Herman G. Richey, "The Persistence of Educational Progress during the Decade of the Civil War. I," *Elementary School Journal*, XLII (January, 1942), 358-66.

TABLE 2
EDUCATIONAL INCOME AND CHILD BURDEN IN 1870, BY STATES

STATE	NUMBER OF DOLLARS PER FREE PERSON				NUMBER OF DOLLARS PER PUPIL ENROLLED				PERCENTAGE OF TOTAL SCHOOL INCOME TO PUBLIC SCHOOLS		PERCENTAGE OF PUBLIC-SCHOOL INCOME FROM TAXES AND PUBLIC FUNDS		PERCENTAGE THAT PUBLIC-SCHOOL INCOME FROM TAXES AND PUBLIC FUNDS WAS OF TOTAL SCHOOL INCOME	
	All Types of Schools		Public Schools		All Types of Schools		Public Schools		1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860
	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860						
Alabama.....	0.98	-0.60	0.63	-0.30	12.87	1.67	9.36	1.43	64.5	5.9	71.0	17.3	45.8	14.3
Arkansas.....	1.41	.81	1.14	.77	8.36	.22	7.67	1.40	81.0	19.0	95.9	83.9	77.7	70.3
California.....	5.26	3.79	2.91	1.98	34.46	14.92	21.55	7.41	55.2	-7.8	93.3	16.6	51.6	3.2
Connecticut.....	3.45	1.82	2.65	1.84	18.82	10.70	16.13	11.59	76.9	26.8	85.3	3.0	65.6	24.4
Delaware.....	1.70	.57	1.02	.41	10.87	1.86	7.59	1.81	60.0	5.7	94.3	3.8	56.6	7.4
Florida.....	.82	-.39	.41	.15	10.54	-4.11	7.54	-2.35	49.4	28.4	80.6	65.1	39.8	36.5
Georgia.....	1.06	-.38	.15	-.61	18.95	6.81	15.77	7.75	14.0	-38.6	33.7	-4.2	4.7	-15.2
Illinois.....	3.93	2.46	3.08	1.80	12.99	7.38	11.53	6.48	78.3	-8.5	75.0	-18.8	58.8	-22.7
Indiana.....	1.49	.84	1.23	.72	5.38	2.61	4.63	2.29	82.6	4.8	97.0	3.3	80.1	7.3
Iowa.....	2.99	1.95	2.72	1.81	16.40	12.32	15.76	12.05	90.9	3.2	99.9	4.8	90.8	7.4
Kansas.....	2.16	.....	1.81	.....	13.15	.....	11.38	.....	83.9	.....	97.7	.....	82.0	.....
Kentucky.....	1.92	.76	.87	.33	10.35	4.22	5.27	2.07	45.3	-9	52.6	-22.1	23.8	-10.7
Louisiana.....	1.65	-1.06	.65	-.60	19.94	-2.92	18.34	3.59	39.5	-6.5	94.1	7.8	37.2	-2.5
Maine.....	1.76	.88	1.35	.63	6.80	3.96	5.52	3.09	76.2	-5.7	96.0	3.3	73.2	-2.8
Maryland.....	2.56	1.71	1.47	1.06	18.61	6.33	13.77	7.06	57.4	9.8	90.7	12.5	52.0	14.8

TABLE 2—Continued

STATE	NUMBER OF DOLLARS PER FREE PERSON				NUMBER OF DOLLARS PER PUPIL ENROLLED				PERCENTAGE OF TOTAL SCHOOL INCOME TO PUBLIC SCHOOLS		PERCENTAGE OF PUBLIC-SCHOOL INCOME FROM TAXES AND PUBLIC FUNDS		PERCENTAGE THAT PUBLIC-SCHOOL INCOME FROM TAXES AND PUBLIC FUNDS WAS OF TOTAL SCHOOL INCOME	
	All Types of Schools		Public Schools		All Types of Schools		Public Schools		1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860
	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860						
Massachusetts.....	3.31	1.50	2.20	.94	17.89	7.87	13.25	5.78	66.6	-2.7	95.7	1.0	63.7	-1.9
Michigan.....	2.15	1.06	1.83	.96	9.56	5.72	8.49	5.25	84.9	5.0	93.3	5.0	79.2	8.6
Minnesota.....	2.30	1.62	2.04	1.54	9.43	5.90	8.66	5.90	88.5	15.0	97.2	4.8	86.0	18.0
Mississippi.....	.94	-1.13	.....	-1.09	17.96	.....	.....	-12.45	.....	-52.6	.....	-35.7	.....	-18.8
Missouri.....	2.52	1.34	1.80	1.05	11.72	5.43	9.66	5.09	71.2	7.5	92.3	22.1	65.2	20.5
Nebraska.....	1.69	.....	1.48	.....	11.78	.....	10.68	.....	87.8	.....	99.6	.....	87.4	.....
Nevada.....	2.60	.....	1.91	.....	46.56	.....	43.79	.....	73.6	.....	100.0	.....	73.6	.....
New Hampshire.....	1.81	.68	1.27	.60	8.89	4.40	6.79	3.70	70.2	12.2	97.2	4.3	68.2	13.4
New Jersey.....	3.29	2.01	1.72	.92	22.98	16.06	19.51	14.65	52.4	-10.1	95.5	12.9	50.1	-1.6
New York.....	3.64	2.34	2.03	1.17	18.49	12.06	12.39	7.60	55.9	-11.1	94.1	.9	52.6	-9.0
North Carolina.....	.59	-.56	.19	-.22	9.79	3.46	4.89	2.33	32.3	-3.2	84.9	-4.3	27.4	-4.2
Ohio.....	3.84	2.54	3.20	2.11	12.95	8.30	11.56	7.24	83.2	-.9	99.6	6.1	82.9	4.2
Oregon.....	2.73	1.34	1.53	.59	7.61	.49	4.67	.....	56.2	-11.3	96.6	37.8	54.3	14.6
Pennsylvania.....	2.73	1.57	2.07	1.21	11.86	6.25	9.78	5.37	75.7	1.9	97.8	.4	74.1	2.2
Rhode Island.....	2.60	1.25	1.64	.73	17.33	9.17	13.05	6.83	62.9	-4.5	98.1	9.1	61.7	1.8

TABLE 2--Continued

STATE	NUMBER OF DOLLARS PER FREE PERSON				NUMBER OF DOLLARS PER PUPIL ENROLLED				PERCENTAGE OF TOTAL SCHOOL INCOME TO PUBLIC SCHOOLS		PERCENTAGE OF PUBLIC-SCHOOL INCOME FROM TAXES AND PUBLIC FUNDS		PERCENTAGE THAT PUBLIC-SCHOOL INCOME FROM TAXES AND PUBLIC FUNDS WAS OF TOTAL SCHOOL INCOME	
	All Types of Schools		Public Schools		All Types of Schools		Public Schools		1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860
	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860	1870	Gain 1870 over 1860						
South Carolina...	.82	-1.47	.40	-.28	15.11	-7.62	8.92	-.96	48.4	18.8	96.7	62.8	46.8	36.8
Tennessee.....	1.31	.02	.54	.06	13.12	6.29	8.23	5.33	41.4	4.0	85.0	30.7	35.2	14.9
Texas.....	.51	-1.03	.....	-.98	17.98	2.81	.....	-11.97	.....	-63.6	.....	-17.9	.....	-11.4
Vermont.....	2.14	1.19	1.56	.86	11.24	7.88	9.92	7.19	73.1	-.8	97.5	-.2	71.3	-.9
Virginia.....	.94	-.23	.08	-.37	19.25	6.54	11.35	5.51	8.5	-30.1	56.1	20.6	4.8	-8.9
West Virginia.....	1.58	.....	1.36	.....	6.65	.....	5.91	.....	85.9	.....	93.9	.....	82.4	.....
Wisconsin.....	2.47	1.49	2.09	1.32	7.56	3.94	6.56	3.56	85.0	6.4	88.8	7.2	75.5	0.1
United States....	2.47	1.21	1.66	.84	13.23	6.89	10.28	5.73	67.1	2.2	91.9	7.9	61.7	7.1

The decrease in the per capita income of southern states is partly explained by the fact that in eight of these states emancipation of the slaves increased the size of the free populations by 60 to 150 per cent.^{*} The effect of the large number of newly freed persons on the per capita incomes in 1870 becomes apparent when the incomes are computed on the basis of a population made up of white persons and of only as many Negroes as there were free Negroes before the war. Computed on this basis, the school incomes for southern states compare much more favorably with those of the North. Even so, the former slave states, with the exception of Louisiana, fell short of the per capita income for the nation. In only four states, however, was the income per person less in 1870 than in 1860, while it tripled in Arkansas and Maryland and doubled in Kentucky and Missouri. Since the Negroes constituted an educational burden which in practice could not be so easily disregarded as it could be in these computations, these figures can be used only to indicate that the educational status attained by the southern states before the war was not, as measured in terms of 1860, entirely lost during the troubled decade which followed.

Per capita income for public schools.—The income for public schools per free person increased for the nation from 82 cents in 1860 to \$1.66 in 1870. At the latter date all the former slave states, except Missouri, were below the national average. Only six of the southern states had greater incomes per free person for public schools than they had had ten years earlier. If the population of 1870 is made comparable to that of 1860 by subtracting from the figures for the later date the part that would have been slave under the conditions prevailing at the earlier date, eight of the southern states had educational incomes per person equal to, or greater than, those enjoyed in 1860. The income of only one southern state, however, was above the national average. In general the South did not compare so favorably with the North as it had before the war. Several southern states had larger incomes per person than a number of northern states, but, on the whole, educational incomes of the latter had increased by much larger amounts.

^{*} *The Statistics of the Population of the United States . . . Compiled from Original Returns of the Ninth Census, (June 1, 1870), pp. 3-8.*

Income per pupil enrolled for all types of schools.—The income of all schools per pupil enrolled increased from \$6.34 in 1860 to \$13.23 in 1870. In the latter year seven former slave states and fifteen northern and western states had incomes per pupil below the average for the nation as a whole. Outside the South, all states which had been in the Union in 1860 showed an increase for the decade. The incomes of four southern states decreased (Louisiana, \$22.86 to \$19.94; South Carolina, \$22.73 to \$15.11; Mississippi, \$18.43 to \$17.96; Florida, \$14.65 to \$10.54), but, among all the states of the Union (California, \$19.54, excepted), these had ranked first, second, third, and fifth, respectively, in 1860.

Income per pupil enrolled has little merit as a measure of a state's educational program if superiority in this respect arises from the failure of the state to make any provision whatever for large groups and classes of its children. On the other hand, large enrolments cannot be taken as evidence of adequate programs of education in states in which the incomes per person enrolled were \$5.38 as in Indiana, \$6.65 as in West Virginia, and \$6.80 as in Maine.¹

Income per pupil enrolled for public schools.—The income of public schools per pupil enrolled in them increased for the nation from \$4.55 in 1860 to \$10.28 in 1870. In the former year eleven southern states had incomes in excess of the national average; at the latter date the incomes of only four were larger than the average for the United States. Ten southern states had larger incomes per pupil in 1870 than in 1860, but on the whole the South failed to keep pace with the North. The condition of the public schools, however, must not have been particularly promising in states in which the incomes per pupil, although twice, three times, or even four times as great as those in 1860, were \$4.63 as in Indiana, \$5.52 as in Maine, \$6.56 as in Wisconsin, and \$6.79 as in New Hampshire. Public-school education in the agricultural South of 1870 was at a low ebb, but it could not be described as flourishing in the agricultural states of the

¹ Counting duplicate enrolments in Maine, Vermont, and two or three other states resulted in increasing the enrolment figures. If the statistics were corrected, the enrolment figures would become less and the income per pupil would become correspondingly larger.

North. Public-school systems in many states, in both the North and the South, were extremely modest undertakings, as late as 1870.

The public school's share of the total educational income.—The percentage of the total educational income devoted to public schools increased slightly from 64.9 in 1860 to 67.1 in 1870. In the South, the losses in Georgia, Mississippi, Texas, and Virginia were not offset by the gains in Alabama, Arkansas, Florida, Maryland, and South Carolina. In 1870 only three of the former slave states exceeded or approximated the national average, which was exceeded by all except seven of the states outside the South. In the North the range was from 52.4 per cent for New Jersey to 90.9 per cent for Iowa, with the states distributed throughout the range. In the South, the range was from zero to 81.0 per cent.

This measure of the status of public education is of limited value. A state might devote nearly all of its educational income to public schools and yet support them niggardly. The small total educational incomes in many states, however, make more significant the fact that in many of them public schools were receiving a rather small share.

Public-school income from taxes.—As small as the income of public schools had been before the war, a considerable portion of it had been derived from tuition and other sources not involving taxation or the use of public funds. In 1850 nearly a fourth, and in 1860 approximately a seventh, of the public-school income came from tuition. In 1870 only one part in thirteen came from this source, and the public schools of only thirteen states, ten of which were southern, received less than 91.9 per cent (the national average) of their support from public sources. Obviously, public schools were coming to be publicly supported.

The percentage that the public-school income from public sources was of the income of all types of schools from all sources increased from 54.6 in 1860 to 61.7 in 1870.¹ In the latter year only two southern states exceeded the national average. Although seventeen

¹ These percentages were computed by dividing the income of public schools (normal, high, grammar, graded, ungraded, etc.) from public sources by the total educational income for public and private schools, the latter including all professional, technical, and classical institutions and parochial, charity, boarding, and day schools.

northern states equaled or exceeded this average, there were northern states for which the public-school income derived from taxes was scarcely more than 50 per cent of the total educational income.

PROGRESS OF EDUCATION DURING THE PERIOD

Evidence presented concerning two important but neglected aspects of educational status—(1) the extent to which the population was provided for in organized schools and (2) the income available for educational purposes—indicates that, in the nation as a whole, progress in educational development was made during the period 1860-70. Improvement within individual states and the sections, however, was uneven, and some states failed to share in the general advance.

Comparisons of the educational programs of southern states in 1860 with those found ten years later are somewhat complicated by the change of status of the great body of Negroes during that period. Sectional differences should also be considered in the light of this change because the added burden of Negro education fell upon the South, already crushed by military defeat and suffering from the disruption of its institutions and the ruin of its economy. It is clear, however, that effort in the southern states was greater in 1870 than at any previous date and that the programs of education were better than they are generally credited to have been. Nevertheless, it is equally clear that during the period 1860-70 the South lost its earlier promise of attaining equality in educational status with the North, at least with the agricultural regions of the North. Education suffered a more serious setback in the South than in the North during the period, but there remained, even in the darkest days of Reconstruction, some kind of educational system upon which to build later when a partial solution of pressing social, political, and economic problems made such action possible.

SELECTED REFERENCES ON PUBLIC-SCHOOL ADMINISTRATION. II

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University of Chicago

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THE January number of the *Elementary School Journal* presented selected references on general administration, state school administration, city school administration, and supervision. The references presented in this article are concerned with teaching staff, school finance, business management, and public relations. The period covered in the selection of the references is November 1, 1940, to November 1, 1941.

TEACHING STAFF¹

46. ALBERT, H. R. "An Analysis of Teacher Rating by Pupils in San Antonio, Texas," *Educational Administration and Supervision*, XXVII (April, 1941), 267-74.

Presents the analysis and conclusions of a teacher-rating study. The findings support the validity of pupil ratings.

47. COCKING, WALTER D. "Education of an Administrator," *Nation's Schools*, XXVIII (July, 1941), 31-32.

Contains a critical summary of prevailing offerings of higher institutions for training school administrators.

48. DAVIS, HAZEL. "The Merit Plan in School-Personnel Administration," *American School Board Journal*, CII (May, 1941), 23-24, 93.

Traces the growth of requisite standards in licensing teachers and elaborates a comprehensive personnel program.

49. FOWLKES, JOHN GUY. "Providing for the Economic Independence of Retired Teachers," *American School Board Journal*, CIII (July, 1941), 27-28, 68.

Discusses the administrator's problem in helping teachers to understand the need for pensions and in getting the state to adopt a good retirement fund.

50. FRAZIER, BENJAMIN W. "Teacher Preparation on Minimum Levels," *Educational Administration and Supervision*, XXVII (April, 1941), 259-66.

¹ See also Item 740 (Lafferty) in the list of selected references appearing in the December, 1941, number of the *Elementary School Journal*.

A report on teacher training in high schools, junior colleges, and normal schools, based on factual data taken from unpublished reports made to the United States Office of Education.

51. KING, W. P. "Continuity of Service for Teachers in Southern States," *Journal of the National Education Association*, XXX (March, 1941), 75-76.

States principles which should be recognized in establishing and administering teacher-tenure provisions.

52. OBERNDORFER, ALBERT E. "Tenure an Aid to Schoolboards," *Journal of the National Education Association*, XXX (February, 1941), 49-50.

A school-board member explains how teacher tenure helps the board to secure a better teaching staff, improve financing of the school program, and plan a more effective curriculum.

53. REEDER, WARD G. "Professional Ethics—A Code for Administrators," *Nation's Schools*, XXVII (January, 1941), 50-51.

Presents a well-formulated text for a code of ethics for school administrators, the specific proposals being drawn from extensive inquiry and study of other codes.

54. SAMUELSON, E. E. "Rating Teachers To Help Them Grow," *School Executive*, LX (June, 1941), 16-18.

The scale originally developed at Central Washington College of Education at Ellensburg for the rating of student teachers can be equally helpful in the rating and guidance of teachers in service.

55. SCOTT, CECIL WINFIELD, and RUFF, OTTO G. "The Superintendent of Schools in Nebraska," *School and Society*, LIV (October 11, 1941), 309-11.

Reports an inquiry regarding the relation between the size of the school systems in Nebraska and the professional status of their superintendents. Considers items such as college training, experience, salaries, and the proportion of time devoted to nonadministrative duties.

SCHOOL FINANCE

56. *Finance and Business Administration*. Review of Educational Research, Vol. XI, No. 2. Washington: American Educational Research Association, 1941. Pp. 133-246.

Summarizes research over the three-year period since the last report. New topics introduced in the present report include administration of school transportation and regulations of school credit. More comprehensive treatment than in previous reviews is given to management of supplies and the legal aspects of finance and business administration.

57. HENRY, NELSON B. "Trends in Legislation Affecting Financial Support for Schools," *National League of Teachers' Associations Bulletin*, XXI (1940-41), 23-29.

Explains the underlying causes of common difficulties in providing adequate financial support for schools and describes the remedial legislation enacted in recent years with a view to improving the basis and methods of school support.

58. HOLY, T. C. "Dayton Schools About Face: The Story of a City's Fight for Funds," *Nation's Schools*, XXVII (April, 1941), 26-28.

Report steps taken by the Board of Education and the citizens of Dayton, Ohio, to overcome the serious financial difficulties with which the schools were confronted from 1931 to 1940.

59. HUBBARD, FRANK W., and SEASE, LOUISE B. "Financing Our Schools," *Nation's Schools*, XXVIII (October, 1941), 47-48.

Presents statistics for 1930-40, showing rapid rise in expenditures of state governments despite reductions in expenditures for schools. Warns that education and other old-line state functions may be neglected in the ensuing years of expanding production in the interests of national defense.

60. JENNINGS, F. G. "Sources of State Support for the Schools," *American School Board Journal*, CI (November, 1940), 42-43.

Analyzes revenues of the forty-eight state school systems in 1937-38, showing the several sources of revenue and the amounts received from each source.

61. LEPAWSKY, ALBERT. "Financing Education in a World at War," *Chicago Union Teacher*, VII (October, 1941), 6-8.

Emphasizes the emerging problems of financial support for schools in the face of rising governmental expenditures for national defense.

62. MORT, PAUL R., and REUSSER, WALTER C. *Public School Finance*. New York: McGraw-Hill Book Co., Inc., 1941. Pp. xviii+570.

A comprehensive treatment of guiding principles, operational procedures, and state and federal participation in financing the public schools.

63. *School Costs and State Expenditures, 1930-1939*. Research Bulletin of the National Education Association, Vol. XIX, No. 3. Washington: Research Division of the National Education Association, 1941. Pp. 99-150.

A comparative study of expenditures for other functions of the state governments during the years 1930-40.

64. SMITH, RUFUS D. "Educational Financing in a Period of Crisis," *American School Board Journal*, CIII (October, 1941), 19-20.

Describes important effects on financial support of schools to be expected as a result of war economy and population changes.

BUSINESS MANAGEMENT

65. ABBOTT, FORREST L. "Accounting for Internal Funds," *School Executive*, LX (March, 1941), 22-25.

Outlines a check list for surveying the internal accounting system of a school, with groups of questions divided into highest, intermediate, and lowest ratings.

66. COMAN, WILLIAM M. "Standardization of Supplies and Equipment," *American School Board Journal*, CIII (October, 1941), 45-46.
Discusses the selection and adoption of recurrent items of supplies and equipment which are essential to efficient instruction. Suggests an organizational set-up and elaborates methods of selection.
67. CUNLIFF, DONALD D. "Points on Playgrounds," *Nation's Schools*, XXVII (April, 1941), 45-47.
Gives suggestions regarding types of surfacing appropriate for different areas and for different types of recreational activities.
68. FLOCKEN, IRA G. "There Should Be a Budget," *Nation's Schools*, XXVIII (October, 1941), 34-35.
A statement of procedures involved in preparing and administering the school budget with a view to economy and efficiency in school management.
69. FOSTER, EMERY M. (editor). "Financial Accounting for Public Schools." United States Office of Education Circular No. 204. Pp. vii+58+charts (mimeographed).
Explains and illustrates basic records for public-school financial accounting as recommended by the National Advisory Committee on School Records and Reports.
70. LONG, RAYMOND V. "Standards of School-Building Construction as Affecting Maintenance," *American School Board Journal*, CII (January, 1941), 61, 108-9.
Covers the larger problems to be considered when a new building is erected, with special reference to future maintenance costs.
71. LOOS, LEONARD E. "Fluorescent Light for Schools," *American School Board Journal*, CI (November, 1940), 25-26, 93.
Presents results of experiments with fluorescent lights and discusses their merits for various locations in the school building.
72. LOOS, LEONARD E. "Do We Need More Light?" *School Business Affairs*, VI (July, 1941), 1-4, 7.
Reports an experimental investigation of effect of schoolroom illumination on reading efficiency. The findings support the view that the cost of providing higher levels of illumination may not be justified by results.
73. McGRATH, D. E. "Applied Plant Research and Its Importance to Costs and Personnel," *School Business Affairs*, V (December, 1940), 3, 6.
Describes innovations in operation and maintenance of the school plant at Danville, Illinois, and notes improvements and economies effected.
74. MILLER, CHESTER F. "City School Sites," *Nation's Schools*, XXVIII (September, 1941), 45-46.
Cites examples in which the designing of school buildings and landscaping has been advantageously co-ordinated with the municipal planning program.

75. NESBITT, ALBERT J. "Ventilation Requirements of Public School Buildings in 1941," *American School Board Journal*, CIII (July, 1941), 41-43.
A reconsideration of the ventilation problem by an engineer who discards the carbon dioxide theory and elaborates two bases for ventilation, namely, removing body odors and preventing overheating.
76. ROBERTS, H. C. "Stretching the School Board's Fire-Insurance Dollar," *American School Board Journal*, CII (March, 1941), 27-29.
Explains methods of saving money on fire insurance by eliminating fire hazards, by having a higher percentage of coverage at a low rate, and by the judicious selection of an insurance company.
77. SCHMIDT, H. W. "School-Plant Surveys," *American School Board Journal*, CII (January, 1941), 17-19.
Discusses the need for a plant survey and explains its special features.
78. SHIRLEY, GRANVILLE V. "Insuring School Busses and Children—The Recent Experience in West Virginia," *American School Board Journal*, CIII (October, 1941), 49-51.
Reports a survey of the types of school-transportation insurance in effect in one state during the years 1935-39.
79. SOLDINGER, MORRIS A., and ERICKSON, ARTHUR E. "Good Accounting Practices," *Nation's Schools*, XXVI (November, 1940), 31-32, 58; (December, 1940), 51-53.
Discusses the similarities and differences between public and private financial accounting, with explanation of procedures in handling certain doubtful items in school accounts.
80. WILLIAMS, R. C. "Rivalry in Transportation," *Nation's Schools*, XXVII (May, 1941), 66, 68.
Deplores the common practice of solicitation of tuition pupils and argues that such competition impedes the progress of desirable reorganization of administrative units in many rural areas.

PUBLIC RELATIONS¹

81. ALLEN, EDWARD E. "Administering the Public Use of School Buildings," *American School Board Journal*, CII (April, 1941), 27-29, 80.
Enumerates seven bases for determining a clear-cut policy for use of school buildings by the public.
82. CALLIHAN, E. L. "Publicizing the School," *Phi Delta Kappan*, XXIII (April, 1941), 285-86.
Urges co-operation of journalism teachers and school administrators in developing improved publicity programs for the public schools.

¹ See also Item 470 (Foreman) in the list of selected references appearing in the September, 1941, number of the *Elementary School Journal* and Item 560 (Bell) in the November, 1941, number of the *School Review*.

83. GOODYKOONTZ, BESS. *Know Your Community as a Basis for Understanding the Schools' Problems*. United States Office of Education Leaflet No. 57, 1941. Pp. iv+36.
Notes important factors in community life and organization which may profitably be made the subject of study by committees and clubs interested in school and community relations.
84. GRIEDER, CALVIN. "Citizen's Advisory Committees—Have They a Rightful Place?" *Nation's Schools*, XXVIII (September, 1941), 29-30.
Suggests a selective advisory committee having quasi-official standing as a desirable agency for securing more adequate interpretation of schools to the community.
85. HENDERSON, RICHARD L. "The Supervising Principal and His Community," *American School Board Journal*, CIII (August and September, 1941), 23-24, 44-45.
A practical approach to the problems of the small-school administrator who must likewise supervise. Considers the necessity of protecting rural teachers from overloads.
86. KOHLER, B. M. "Tell It to the Community—One Board Found It Worth While," *Nation's Schools*, XXVII (June, 1941), 31-32.
Reports a successful symposium in which members of the school board explained school problems to the public.
87. MASTERS, HUGH B. "A Community School Camp," *Elementary School Journal*, XLI (June, 1941), 736-47.
Describes progress of a project of the W. K. Kellogg Foundation designed to co-ordinate educational experiences of children in a community school camp with the regular school program.
88. MAYER, JANE, and SUTHERLAND, MIRIAM. *The Community—A Laboratory*. P.E.A. Service Center Pamphlet, No. 1. New York: Progressive Education Association, 1941. Pp. 18.
Describes a number of projects regularly carried on or recently completed by the Community Council and the Parent-Teacher Association in Glencoe, Illinois. These emphasize the value of school and community co-operation in furthering the aims of democratic education.
89. MULFORD, HERBERT B. "School Policies as an Aid to Public Relations," *American School Board Journal*, CIII (August, 1941), 15-16, 70.
Notes the factors in most school systems which are favorable and those which are unfavorable in the formulation of good school policy.
90. REAVIS, WILLIAM C. "How Parents Can Best Serve the Schools," *Elementary School Journal*, XLI (March, 1941), 497-506.
Suggests the need for better understanding of school problems and of types of co-operation through which parents can contribute to the effectiveness of the schools and the progress of their children in school work.

91. SAUNDERS, CARLETON M.. "Parents Make Good Partners—An Experiment in Sharing the School," *Nation's Schools*, XXVIII (August, 1941), 27-28.
Describes a program of monthly meetings of teachers and parents for discussion of local school problems.
92. SCHMITT, IRVIN H., and CHILDS, FRANK A. "Six Schools with Social Centers," *Nation's Schools*, XXVII (February, 1941), 20-22.
Presents illustrations of six newly constructed elementary-school buildings and explains special appointments designed to facilitate community use of these buildings.
93. *Schools and Public Libraries Working Together in School Library Service*. Report of the Joint Committee of the National Education Association and the American Library Association. Washington: National Education Association, 1941. Pp. 64.
Describes co-operative programs of schools and public libraries in representative cities and counties and enunciates certain guiding principles which may be accepted as the basis for defining the functions of these two agencies.

Educational Writings

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REVIEWS AND BOOK NOTES

NEW TEXTBOOK IN EDUCATIONAL PSYCHOLOGY.—During the past decade some forty general textbooks in educational psychology have been published. While there is, of course, a considerable body of common material in all these books, there are still sufficient variations in both content and mode of treatment to indicate that this field is not yet well defined. Some of the authors use their textbooks to develop the principles of their own particular school of psychological thought or theory of learning, whereas other authors avoid controversial and theoretical problems and give most of their treatment to the presentation of topics on which there is more common agreement. A recent book by Starch, Stanton, and Koerth¹ would be classified in the latter group.

Another characteristic of some books in educational psychology is that they overemphasize those topics which constitute the prevailing interest during the period in which the books were written. Several of the publications which appeared in the later 1920's gave a majority of their space to educational measurement, thus reflecting the wide interest in standardized tests which was current at that time. In some of the more recent books a similar imbalance has gone to the treatment of topics relating to personality and guidance. The book by Starch and his co-authors enjoys the advantage of a balanced treatment of the topics included. Part of this balance is apparently due to the spread in experience represented by the authorship. Starch has been a mature student of the field of educational psychology for more than a quarter of a century, whereas his co-authors have had more recent training. As a result of this combination, the book gives considerable space to those topics in educational psychology which are the subject of current discussion, but at the same time it preserves the findings of earlier experimentation as far as these have been proved to be significant for problems of education. In so doing, this book is following the pattern of the textbooks in the older sciences, such as chemistry, physics, and biology.

The present book is organized in two general divisions, the first of which gives attention to directing pupils in school environment. This section, constituting about half of the book, deals with the general topics of child development, learning, mental abilities, and measurement. The treatment is well balanced, although quite properly giving more attention to the newer data in educational psychology. The second section deals with applications of psychology to

¹ Daniel Starch, Hazel M. Stanton, and Wilhelmine Koerth, *Psychology in Education*. New York: D. Appleton-Century Co., Inc., 1941. Pp. x+722. \$3.00.

the various subject-matter divisions of education. These are classified according to the common divisions of school subjects. The treatment here is direct and specific and will be found particularly helpful to teachers in facing practical problems in their specific fields. This part of the book is characterized by an emphasis on experimental data and their significance, as contrasted with theoretical discussions. The bibliographies at the end of the chapters are copious and deal for the most part with studies made during the past decade.

The book by Starch and his colleagues will probably be more satisfactory to students who are concerned with the techniques of learning and child guidance and with the solution of practical school problems than to students who are primarily interested in theoretical problems. It will need some supplementing in classes of students who are already mature in their educational thinking, but most teachers will undoubtedly find it a very satisfying book.

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A GENERAL DISCUSSION OF THE ELEMENTARY SCHOOL.—As a survey of theory and practice in the elementary school, the book under review¹ adheres to the organization prevailing in most of the recent books on elementary education. The discussion begins with a brief but quite adequate overview of various phases of child development and of the theories of learning. One chapter is devoted to democratic practices in administering the school. Discussions of the objectives, of the general characteristics of the old-type and the new-type curriculums, and of the process of teaching take up three successive chapters. The major part of the book is devoted to a critical analysis of the teaching practices in various subject-matter areas, such as reading, language, social sciences, and art. At the end there is a slight bow to the evaluation of results and the role of the teacher.

However, the Table of Contents belies the character of the book, for it is far less conventional and stereotyped than this organization suggests. Throughout, the author manages to maintain and to convey a coherent, personal viewpoint. In the words of the author, this viewpoint represents an attempt to evaluate learning and teaching in the light of "Gestalt, or organismic, psychology and the democratic philosophy" (p. v). There is a consistent emphasis on such concepts as wholeness of the growth process, integration of experience, and meaningful activity. The importance of developing a social point of view and the techniques and habits of rational thought is underscored and concretely demonstrated in connection with all phases of teaching, from grammar to science.

The result is heartening and refreshing. In place of bewildering the reader

¹ W. A. Saucier, *Theory and Practice in the Elementary School*. New York: Macmillan Co., 1941. Pp. x+538. \$3.25.

by the effort to report abundantly on research and by the conscientious attempt to present diversified viewpoints and arguments on their behalf, the author provides a discussion which has unity and cohesion. Whether or not the reader agrees with the author's basic viewpoint, he can be helped to a clearer perspective on the issues of elementary education.

As has been mentioned, the organization of the book is somewhat inconsistent with the basic position taken. This inconsistency is particularly noticeable in the section devoted to the analysis of teaching in the subject-matter areas. There are separate chapters on reading, language, handwriting and spelling, etc. This arrangement represents a kind of atomization of curriculum to which the author, who advocates the organismic view on learning and integration of curricular experiences, does not give his approval. Yet he manages to treat his subject in such a way as to turn this potential weakness into a strong point. By starting with the conventional way of teaching and by judiciously reporting on research as well as on the more advanced practices, he is able to reveal difficulties in many existing practices and to suggest suitable roads toward the improvement of teaching, without either unduly condemning the existing practices or unduly idealizing the progressive practices.

Taking the conventional divisions of subject matter as a point of departure provides opportunity to indicate concretely how a broader and a more adequate approach could be brought about. For instance, in discussing the development of social intelligence as part of the teaching of social sciences, the author points out the utility of laboratory experiences for studying social problems as well as for investigating scientific phenomena, while warning the teachers that, "if scientific thinking is confined to the area of natural science in school, it is likely to remain in this area alone outside the school" (p. 306). Similarly, in the discussion of the teaching of science, the importance of developing social attitudes and appreciations is emphasized.

The technique of allowing statements of research facts and results of current practices to tell the story and of avoiding, rather more successfully than is usual, ex cathedra preaching on the desirable way of going about teaching creates the impression of a sober, well-considered, and mature presentation. The use of the term "democratic" constitutes one of the few exceptions to this general impression, for the word is somewhat overworked and in places is vaguely applied. Thus the assignments worked out together by teachers and pupils are characterized as "democratic" in the phrase "traditional versus democratic assignment." One is inclined to wonder whether assignments of this sort are introduced for the sake of democracy or merely as examples of plain good teaching.

The treatment of the evaluation of results is one of the least satisfactory parts of the book. While the author emphasizes such objectives as thinking, development of social attitudes, and interest as the important ones, he has little to offer by way of suggestion on means of measuring the extent to which these objectives are achieved. Lists of standard achievement tests are given without

critical appraisals, though the concentration of evaluation on information alone is condemned. The concluding chapter discusses, in somewhat ex cathedra fashion, such characteristics of examinations as reliability and validity and arrives at the amazing conclusion that the essay test is a better examination than an objective test because it gives greater opportunity for intelligent self-expression—as if self-expression were the only objective to be appraised. Apparently the author is unaware of the more recent research with regard to the ways and means of appraising the objectives which he thinks important.

Without crowding the discussions, complete documentation giving references to interesting and up-to-date research is provided. There are ample illustrations of practices and procedures, and most welcome restraint has been used in giving heterogeneous lists of activities, objectives, and characteristics that make some of the general books on education difficult to digest. The clear, simple, coherent style, devoid of pat phrases or standard stereotypes, makes for enjoyable reading.

The book is to be heartily recommended for elementary-school teachers whether or not they approve of progressive practices. For those who already have accepted the viewpoint presented in the book, the discussion will give an opportunity to explore some of the basic principles and the facts underlying them. For those who hold to the traditional viewpoint, the book will present some very cogent facts and arguments for re-examining their practices.

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CHILD PSYCHOLOGY POPULARLY PRESENTED.—No area of scientific endeavor, after it has once been brought to the attention of the general public, can long escape the layman's demand for popular literature in that field, and child psychology is no exception. *Children in a World of Conflict*,¹ in its cleverly worded title, in its uncrowded pages of large type, in its complete omission of statistical tables and diagrams, and in its use of a minimum technical phraseology, is a typical treatise on practical child psychology written for "the man in the street." According to the author, who, by the way, is a consulting psychologist rather than an academician: "The primary purpose of this book is to examine some of the ways in which children respond to environments which are confusing and frequently hostile, and to indicate what might be done to help them make the most adequate adjustments" (p. 9). He devotes most attention to the school, "not because it is most important, but because it is the logical medium through which the child moves from the more restricted activities of the home to the more extensive activities of the world at large" (p. 10).

The author's procedure is to propose a series of eleven questions and, after

¹ Roy F. Street, *Children in a World of Conflict*. Boston: Christopher Publishing House, 1941. Pp. 304. \$2.50.

each question, to devote some twenty-five pages to a more or less dogmatic statement of the psychological principles involved. This statement is usually followed by one or more case incidents to clinch the discussion. The author proposes the following questions: (1) "How Do Children Develop Feelings of Social Worth?" (2) "Do Children Respond to the Demands of Life in the Same Ways?" (3) "How Do Internal Forces Affect What a Child Does?" (4) "Why Do Children Behave as They Do?" (5) "How Do Children Learn?" (6) "What Can Schools Do for Children?" (7) "How Does the School Organization Affect a Child's Opportunities for Growth?" (8) "How Can the Teacher Discover Learning Needs?" (9) "What Is the Teacher's Role in Society?" (10) "What Constitutes Good Teaching?" (11) "Do Children Need Adult Help?"

In general, conflicting theories are not referred to; theoretical aspects are minimized; and experimental research is made conspicuous by its absence. Nowhere does the author label or brand a particular psychological theory. However, the underlying ideas lean toward those acceptable to today's progressive educationists. For example, the author summarizes the best teacher as "one who has the most information about the child and who is most skilful in basing the instruction upon the obvious needs. Such a teacher will be skilful in the art of observation, testing, interviewing, and more especially in the ability to synthesize findings into a complete whole, giving a clear picture of behavior, growth, and culture, which will indicate the point at which instruction should naturally begin, as well as the direction it should take" (p. 196).

Children in a World of Conflict will not be of interest to the student of psychology or education; but it should prove to be of tremendous help to the father and mother, unfamiliar with child psychology, who nevertheless feel that they should have a passing acquaintance with its general principles. It is the type of book that administrators and teachers will recommend to parent-teacher associations and adult study groups. In the reviewer's opinion, the list of 286 specific problems (pp. 228-42) which children may sooner or later need to solve is especially pertinent and thought provoking. The list includes the obvious—"How to put on and take off clothes," "How to use mediums such as pencil, pen, and typewriter," "How to count," etc.—as well as many that are not so obvious—"How to whistle," "How to ride in an elevator," "What is correct swimming apparel?" etc. Problems like these, if unsolved, are likely to lead to childhood difficulties and, more serious, if they are unrecognized, frequently prove to be the barriers to happiness and mental adjustment in later life.

Just a word of caution, *Children in a World of Conflict* might lead an unquestioning layman to conclude that the psychologists "know all the answers." Again and again the author presents a principle and then cites a case incident in which the application of that principle worked perfectly. He frequently, although not always, neglects to mention instances where, with similar symptoms, the treatment yielded negative results.

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BLUEPRINT FOR THE ELEMENTARY-SCHOOL LIBRARY.—A service which is growing rapidly in the elementary school is that of the library. When progressive methods of teaching are used, collections of books, magazines, pamphlets, and illustrative materials of all kinds are an essential part of the teaching technique. At present the practices of schools in the care and use of such materials vary widely. At one extreme are to be found the worn, unsuitable, unused, floating collections scattered about the school; at the other extreme, the well-organized, well-selected, efficiently managed central library with branches in every classroom. The whole library movement for the elementary school is in the developmental stage, and consequently much waste and lack of co-ordination with the educative process are found. In this situation Gardiner and Baisden's book on the administration of the elementary-school library¹ is both timely and essential.

There is available in print relatively little material on the subject of the elementary-school library. In the main, the literature consists of short discussions appearing in books on elementary-school administration, a few good treatments of different phases of service, and a large body of interesting experiential articles. With the present chaos which obtains in library service in elementary schools, general principles of guidance are needed. Gardiner and Baisden furnish such fundamental concepts. Their book is both sound and practical because it recognizes the complexity of a situation in which the field of librarianship, the field of teaching, and the field of school administration are vitally concerned. This analysis of the responsibility for a functioning library service gives the book its particular value.

Various phases of elementary-school library service are treated. Chapters i-vi are concerned with organization and administration; chapters vii-x have to do with the materials in a library; chapter xi takes up the problem of teaching pupils how to use books and libraries; chapters xii-xiv discuss the reading experiences of young people; chapter xv suggests ways in which the library may be useful in the primary grades; and chapter xvi gives ways and means of co-operating with the public library. The book is mainly concerned with library service for the intermediate and the upper grades, but the primary grades have not been overlooked.

Although the book contains only about 160 pages, it includes all fundamentals. There is a minimum of discussion, and the writing is concise and direct. For many of the topics, supplementary information is needed, and additional sources are suggested in the book. All the vital tools for library service in the fields of organization, administration, and book selection are indicated and stressed. The book is attractive and modern in its page arrangement, and most of the photographic illustrations are functional.

Administering Library Service in the Elementary School is the guide needed

¹ Jewel Gardiner and Leo B. Baisden, *Administering Library Service in the Elementary School*. Chicago: American Library Association, 1941. Pp. 162. \$2.25.

at the present time, when there is likely to be an unprecedented growth in elementary-school libraries. The book will give the movement the right direction and will save schools costly mistakes. It will also point the way to the kind of training needed by librarians for this special type of service.

HANNAH LOGASA

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Educational News and Editorial Comment

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CHANGES IN EDUCATIONAL ORGANIZATION OF THE UNIVERSITY OF CHICAGO

ON JANUARY 22, President Robert M. Hutchins of the University of Chicago announced the University Senate's approval of three important changes in the policies and program of the institution. These modifications of previous practices relate to the awarding of the Bachelor's degree, the length of the quarter periods, and the weekly class schedules. All the changes in the University procedure will be of interest to present and prospective students.

The revised basis for the award of the Bachelor's degree abandons the traditional four-year program and provides for the granting of the degree at the completion of the period of general education, now recognized as the period ending with the Sophomore year. While this move constitutes a striking innovation in American educational practice, it does not represent a new concept of the significance of the Bachelor's degree. The proposal has been prominent in the deliberations of administrative bodies within the University for a number of years and in other quarters has been advocated from time to time for a generation. From the beginning of the summer quarter, entering students will be candidates for the new degree.

An increase in the number of weeks in the quarter from eleven to

twelve has been adopted, beginning with the current quarter. The normal summer quarter this year will run from June 22 to September 12. Because teachers are generally required to return to their schools about September 1, a special schedule will be provided in the Department of Education and in courses in other departments and divisions of the University in which teachers are enrolled.

In past years, classes for college and graduate students have been scheduled for four or five sessions a week. The new program provides for three sessions a week during the lengthened quarter, the courses being scheduled on a Monday-Wednesday-Friday or Tuesday-Thursday-Saturday cycle.

The lengthened-quarter period further increases the opportunities afforded by the University for students to complete their selected programs in fewer years of institutional residence. It is designed to serve also the pressing needs of young men who are registered under existing war regulations. The three-day schedule for classes each week will enable the student who must finance his own education to do so on a regular employment basis, allowing three days for study and three days for work.

EMPLOYMENT OF SCHOOL CHILDREN IN AGRICULTURE

THERE are numerous reports to the effect that educational authorities in agricultural areas are being urged to adjust school schedules to the requirements of agricultural production, emphasis being placed on the demands that war makes on agricultural resources. The Board of Trustees of the National Child Labor Committee reports the results of an inquiry which indicate that such measures are being adopted in a majority of the states, although in only a few states is the movement promoted by agencies outside the local school districts. Realizing the possible danger to the welfare of the children affected by these measures, this board has issued a statement of important considerations which should be recognized as applying to the present situation and which school authorities should be asked to observe as a means of preserving the standards built up in past years for the protection of young people against the recognized evils of child labor. With respect to the employment of school pupils for agricultural work during school hours, the above-named board makes the following suggestions.

1. Every proposal for modifying school requirements in order to permit pupils to help temporarily in agricultural work should be considered strictly on the basis of facts ascertained at the time as to the alleged emergency and should be authorized only after the state farm placement service in the state concerned has certified that sufficient adult labor is not available at reasonable wages.

2. The governor, the state department of education, the state department of labor, or the farm placement service should, in every state, be responsible for initiating the discussion of any such proposal by the departments named, and any decisions and plans for employment of school pupils should be such as are approved by these departments.

3. In no case should school pupils be employed because their labor can be secured more cheaply than that of adults. If pupils are called upon to cultivate or harvest crops on a piece-rate basis, they should be paid at the same rate as adults.

4. Temporary release of pupils from school for agricultural work, away from the home farm, should be limited to those fourteen years of age or over, unless in case of extreme emergency. Preference should be given ordinarily to older pupils. Administratively, it may be found desirable to limit the release of children to those in specified school grades rather than on an age basis only.

5. School time lost because of temporary emergency agricultural labor should be made up.

6. Recruiting of labor of pupils in school for emergency agricultural work should be done as a community enterprise, under plans that have been approved as proposed above, and should be under educational supervision.

EDUCATION AND COMMUNITY LIFE IN RURAL AREAS

A PUBLICATION entitled *Rural America Today—Its Schools and Community Life* will be issued by the University of Chicago Press about the first of May. The volume, prepared by George A. Works, of the Department of Education, and Simon O. Lesser, is an outgrowth of a suggestion made by officers of the General Education Board, which financed the study.

In the preparation of this report, several approaches have been made to the problems involved. Some field work was done, especially by the senior author. However, in comparison with the magnitude of the problem, a relatively small amount of the material used was gathered at first hand. During the trips made in connection with the field work, conferences were held with many workers connected with rural social and educational institutions, and the experiences from this source were drawn on heavily.

Extensive use was made of printed sources treating of rural prob-

lems. Materials of a helpful nature were obtained from state departments of education, land-grant colleges, teachers' colleges, the United States Office of Education, the United States Department of Agriculture, and reports issued by local groups as well as other state and national organizations. These sources were supplemented by correspondence with literally hundreds of persons, and in some instances personal interviews followed the correspondence.

The scope of the study made it impossible for the authors to have firsthand knowledge of all the subjects treated, and specialists were asked to prepare reports on certain phases. Among those who assisted in this capacity were Newton Edwards, professor of education at the University of Chicago; T. Lynn Smith, head of the Department of Sociology at Louisiana State University; Horace Mann Bond, president of Fort Valley State College, Fort Valley, Georgia; Grace A. Browning, assistant professor of social service administration at the University of Chicago; and M. M. Chambers, chief of the Student Project Planning Section, Division of Student Work, National Youth Administration.

It must not be inferred from this account of the procedure followed that the report is a series of more or less unrelated chapters written by authorities in the several fields. The authors have used the data and materials from the several sources in preparing what they hope will be a comprehensive and unified report of their own design. The work is not a research volume. Rather it is an attempt to give the general reader a picture, in nontechnical terms, of the deficiencies and the significant developments in rural education and related phases of rural community life. It should awaken the reader to a realization that, in spite of the progress made during the past generation, there are still marked weaknesses in the cultural and welfare agencies serving rural America. The dangers inherent in such a situation are too great for a democratic society to risk.

The authors, in considering education for rural areas, have made no narrow interpretation. Schools and other agencies concerned largely with formal education are central to the volume, as is shown by the discussions of such phases as the limitations placed on schools in rural areas by the imbalance between their financial resources and the numbers of children to be educated, the need for a reorganization

of local units of school administration, the status of adult education in rural communities, and the educational opportunities available to rural Negroes. That the broader aspects are not neglected is shown by the treatments of such phases as the relation of local planning to rural progress and the relation of the schools in rural communities to health, libraries, recreation, and social welfare.

POPULATION TRENDS AND SCHOOL ENROLMENT

THE 1940 Census returns gave rise to varying interpretations of the effect of the observable retardation of population growth on the size and the organization of local school systems in the years ahead. Reports from many local communities during the current school year have noted some increase in enrolments in the lower grades. An analysis of population statistics for the state of New York is the basis of a somewhat cautiously worded prediction regarding the prospective membership of the elementary- and secondary-school units of that state during the next ten or fifteen years. The conclusion of this study is expressed in the following quotation from the New York State Teachers Association's *Public Education Research Bulletin* for October 15, 1941:

Increased attendance in the primary grades beginning about 1942; increased demand for primary teachers; gradual stabilization and finally increased elementary-school attendance and demand for elementary-school teachers by 1950.

Decreased attendance in the secondary schools and decreased demand for secondary-school teachers at least until 1954, followed by a period of gradual growth, assuming no major changes in the present secondary-school program or present employment trends.

Continued decline in city school attendance and the number of city school teachers; rapid growth in suburban schools and increased demand for teachers in suburban communities.

Rural schools continuing to educate many future residents of cities and metropolitan areas.

DEFENSE SAVINGS PROGRAM

DR. JOHN W. STUDEBAKER, United States Commissioner of Education, in an article appearing in the December, 1941, number of *South Carolina Education*, the journal of the South Carolina Education Association, has announced the details of the program, developed in co-operation with the Treasury Department, for the participation of the schools in the plans of the government to enlighten American

citizens with respect to the financing of national defense. The procedures to be recommended to the schools were determined by securing the answers of the officials of the Treasury Department to a series of questions propounded by Commissioner Studebaker. Materials are being prepared by the Office of Education which will provide all necessary information for teachers regarding both the fundamental conditions and purposes underlying this country's defense activities and the policies upon which the government's financial plans are based. A series of four manuals and a syllabus to guide teachers in the use of the materials provided will soon be available through the local defense savings committees being organized in counties and cities throughout the country. It is suggested that school authorities make preparations for the general introduction of this program with the opening of the school term in the autumn. However, the government, it is said, has no desire to force the schools to become sales agencies for bonds and stamps. The purpose of the government is to make it convenient for adults and young people in all areas to take part in the financing of the defense program, but there will be no attempt to compel them to participate.

The objectives of the government in soliciting the co-operation of the schools in this movement are indicated by the answers formulated by federal officials in response to two of the questions submitted by Commissioner Studebaker. These two questions and the answers are here quoted.

"What are the objectives which the federal government desires to realize through the participation and co-operation of the schools in a program for the sale of government securities for financing national defense?"

The principal objective of the federal government in its relation with the public-school system in the Defense Savings Program is to aid the students to know the facts and understand the purposes behind the national effort for total defense, and particularly the importance of the financing of this effort. The primary purpose of the government is to inform the coming generation why we have embarked upon this fight for the preservation of the freedoms that matter, and how we plan this great enterprise for the common good. Subsidiary to this is our hope and expectation that the information we give may persuade the students and their parents to participate in the financing of national defense.

"How can the government's objective be fitted into the educational objectives of the schools and be carried out as part of the regular school program?"

This major objective of the government has a close relationship to the gen-

eral purpose of the education program of the public-school system of the nation. It is deeply concerned with citizenship training for the national defense and the achievement of our national destiny. It can readily be made an integral part of the general approach that the schools have to the training of citizenship. It is not, in any major sense, an effort to use the school system as a collecting agency. When plans for the sale of defense stamps in the schools are voluntarily offered by the teachers or the pupils they would, of course, be welcomed. In no sense, however, is it a primary purpose. Rather, we seek to pursue the maxim of Saint Paul: "Learn ye the truth and the truth will make you free."

Many schools in the country have already instituted systematic defense savings programs and have formulated their own methods of procedure. An interesting example is reported in the January issue of the *School Bulletin*, organ of the local teachers' association in Kansas City, Kansas. On Tuesday, January 27, the first "Defense Savings Stamps Day" was observed in each of the forty-nine schools. Superintendent Schlagle announced that every Tuesday thereafter would be so observed in all schools except the high schools, in which as many additional days each week as are necessary would be utilized. In order to make the program uniform throughout the city, only ten-cent stamps for the five-dollar albums are offered for sale through the schools. The participation of the employees of this school system is described as follows:

Starting in February and continuing every month thereafter, the 832 employees of the Board of Education will purchase defense savings bonds and stamps. The purchasing plan, worked out by a committee that represents a cross-section of all the interests and activities of the public-school employees, provides that each employee voluntarily pledge himself to buy defense savings bonds and stamps. The committee recommended that the amount of stamps and bonds bought should be 5 per cent of a \$135 monthly salary. Those receiving more or less than that amount should select their percentage in proportion to the \$135.

In the *Seattle Educational Bulletin* for November, 1941, Edgar A. Stanton reports what is believed to be a national record in the purchase of defense bonds by the pupils, 1,733 boys and girls having used their individual savings in making the initial purchases. By the time Mr. Stanton's report was published, 2,600 children in the Seattle schools had acquired \$100,000 worth of bonds. The following excerpt from the report explains the method employed by this school system.

The school savings plan that has operated here for nineteen years furnished the machinery. The teachers helped; the children and their parents did the rest. Undesirable stimulation was absent. The large amount of defense spending in this area justifies a correspondingly large defense saving. And when we recommend the purchase of a defense bond by a child, we know that it is a safe place for anyone's money. In fact, the bond is as safe as any paper money can be, and it bears interest.

Everyone knows that the purpose of these bonds is to furnish the money to defend our homes, schools, and country. Sometimes we forget, however, that inflation is an enemy as well as Hitler. When money is taken out of circulation and put into bonds, it cannot be spent for non-defense needs. Probably the best way to control rising prices outside of direct legal stabilization is through holding down demand by this method.

Salaried people and others with fixed incomes suffer most from rising prices. When deflation sets in, they are called upon to help those whose high wages have turned to no wages. Possession of defense bonds will be highly desirable at that time.

Most of the time our citizenship training must be practiced in everyday duties and necessary civic attitudes. Essential to successful living they are, but usually not suitable vehicles for much youthful enthusiasm. Here, however, is an opportunity for the exercise of patriotism in a way that will count immediately, effectively: a chance to help protect all we have and are.

State departments of education are developing plans for the guidance of local school systems in formulating defense savings procedures. A well-designed pamphlet has recently been distributed among the schools of New York by the State Education Department. The pamphlet stresses the teaching values of systematic saving, as well as the significance of the school organization in the nation's defense effort. Specific suggestions are provided for school administrators with reference to the organization of the program for the school system as a whole, and appropriate activities are listed for pupils in different grades. Referring to the sale of defense stamps in the elementary-school grades, the following suggestions are given.

In the suggestions here presented, the teacher should keep in mind that the sale of defense stamps is not primarily to raise money. Obviously, there are faster and simpler ways for the government to finance the defense effort. The success of the sale of defense stamps will be achieved in the terms of the number of people participating and in terms of the number of partners it wins among the men, women, youth, and children of the nation. Furthermore, lasting educational values may be realized through the defense saving effort in teaching patriotism, love of country, a sense of partnership and participation, no matter how

tiny, in the government of all our people. In organizing and conducting teaching activities in connection with the sale of stamps, it is suggested that the following concepts be kept in mind:

- "1. We are all dependent upon each other.
- "2. Each child should be willing to think and to act for the good of all.
- "3. We have organized government to insure freedom and justice.
- "4. Government is the responsibility of everyone."

Following are suggested activities with reference to teaching in connection with the defense savings program. These activities may be organized and developed in connection with the entire instructional program in the elementary school:

- Obtaining the first stamp and stamp album
- Buying stamps regularly
- Visiting the bank for purchasing stamps
- Preparing a simple home-room dramatization
- Preparing an assembly program about defense savings
- Writing a story about defense stamps
- Celebrating patriotic holidays
- Planning to earn money for stamps
- Giving a party for parents, admitted by stamps
- Planning a patriotic exhibit
- Writing the grocer, asking him to stock stamps
- Writing a letter, telling why stamps are important

As children grow older, they become interested in the realistic activities of life. They begin to understand that our government looks to them as future citizens. In the upper grades of the elementary school children enter the age of the beginning of organization, of clubs and of hero worship. This is the critical age to which the dictators have given particular attention. In America, the defense stamp plan offers an opportunity to direct the enthusiasm of youth toward citizenship ideals and the values of working together for a common purpose. The following activities are suggested as a means of aiding teachers in directing the energies of the older children:

- Organizing defense stamp clubs
- Planning poster exhibits
- Organizing committees of correspondence with other schools
- Planning a historical presentation for the school assembly
- Planning a radio broadcast on defense savings
- Planning a patriotic pageant
- Organizing a Minute Men's club
- Writing letters to local newspapers
- Using stamps as attendance prizes
- Writing an assembly talk
- Planning a home-room celebration on patriotic holidays

SUMMER WORKSHOPS AT THE UNIVERSITY OF CHICAGO

ARRANGEMENTS have been made by the Department of Education of the University of Chicago for several workshops in the summer of 1942 which will serve the needs of superintendents, principals, supervisors, teachers, and librarians desiring to work on problems pertaining to their own schools or classes. Workshops of particular interest to readers of the *Elementary School Journal* are provided in the following fields: elementary education, educational administration, and human development. A special bulletin on the workshops will be issued in the spring quarter, and persons interested in receiving additional information about the workshops may obtain this bulletin by addressing Professor Ralph W. Tyler, chairman of the Department of Education.

The Workshop in Elementary Education will be conducted by the Department of Education with the assistance of additional staff members and will continue through the first seven weeks of the summer quarter, June 22 to August 7. This workshop provides opportunity for group meetings and discussions, for small working groups, and for individual projects. Special facilities and staff leaders will be available for work on problems of curriculum revision, evaluation, guidance, and the arts. In the curriculum-revision projects, special consideration will be given to the implications of recent studies in child development. Professor Virgil E. Herrick, of the Department of Education, is director of this workshop.

The Workshop in Educational Administration is being organized to include sections for city school superintendents, elementary-school principals, high-school principals, guidance officers, and administrative officers in higher institutions. This workshop will be conducted during the first term of the summer quarter, June 22 to August 1, under the direction of Professor William C. Reavis, of the Department of Education. This is the first time the University has provided for a workshop devoted entirely to problems in the field of administration. Each person admitted to this workshop is expected to have in mind a clearly defined problem in administration for which he seeks a solution. Those who enrol will be required to devote approximately one-third of their time to the workshop and two-thirds of their time to systematic courses, one of which must be in

some area of educational administration. Staff members will allot a considerable portion of their time for conferences with individual students and for group discussion of problems of common interest among those enrolled in the workshop.

The Workshop in Human Development will be conducted during the first seven weeks of the summer quarter with the co-operation of the Committee on Human Development of the University and with the assistance of staff members of other departments and divisions of the University concerned with the scientific study of human beings. The workshop will be open to selected officers and teachers of public and private schools and to college teachers in the fields of biology, sociology, psychology, mental hygiene, child development, and education. It will provide these persons with opportunity to deepen their understanding of children and young people and to work out the implications of this knowledge for particular problems in their own school systems and institutions. Professor Robert J. Havighurst, of the Department of Education, who is the secretary of the Committee on Human Development, is director of this workshop.

In all the workshops graduate credit is provided on the basis of the nature and quality of the work done. The University makes available to workshop participants a variety of resources, including the help of staff members in several departments, library facilities, summer laboratory schools, and collections of curriculum and evaluation materials. It is expected that a number of the participants this summer will work on some of the critical educational problems which have been precipitated by the war.

HERE AND THERE AMONG THE SCHOOLS

FOUR examples of the resourcefulness and enterprise of teachers and institutions are here reported for the value they may have as suggestions to other persons who have some responsibility for the welfare and progress of pupils in the schools. One of these illustrations is furnished by a county school system in West Virginia; another represents the unique educational program of a cultural institution in Brooklyn; two are drawn from the experiences of teachers in Chicago, one example reported by representatives of a public school and the other by a sixth-grade teacher in a private school.

Use school-made movies as an aid to rural teachers Teachers of one-room rural schools encounter many difficulties in their efforts to organize all the necessary classes for the pupils of every grade and still leave time for the supervision and coaching that their slow-learning pupils should have. The school system of Mercer County, West Virginia, has produced a sound film based on the activities of a regular school day in a well-managed one-room school of that county. This movie is intended for use as a teacher-training film for the benefit of the less skilful teachers in rural schools or for pre-service training of prospective recruits for the staff of the Mercer County school system. It is sometimes shown at teacher institutes or to local study groups. The production and use of the film are described in the December, 1941, issue of the *Educational Screen*. This two-reel film and the accompanying narrator's comment explain the methods employed by the well-trained teacher to insure an adequate allotment of time to each school subject and activity and still have time enough left for the consideration of problems of individual pupils. The organization of classes with regard for ability levels and the distribution of class periods within the morning and afternoon sessions provide clear-cut illustrations of the effectiveness of program-planning in the hands of an experienced and resourceful teacher. Teachers or superintendents interested in purchasing or renting a print of this film may direct their inquiries to the Audio-visual Aids Service, Mercer County Schools, Princeton, West Virginia.

Classes in gardening for Brooklyn school children For twenty-five years the Brooklyn Botanic Garden has provided systematic training in gardening and nature-study for children who desire to attend Saturday classes. Ellen Eddy Shaw, curator of elementary instruction, has written a pamphlet describing the work of these classes. The pamphlet bears the title *Our Pattern*, probably because it describes a carefully formulated program based on activities which commonly do not adhere too rigidly to predetermined purposes. These Saturday classes are designed to attract children to the Botanic Garden, and the program is conducted with a view to holding their interest for the years of child-

hood and youth—not merely for a few weeks in spring or summer. Yet there are requirements for acceptable membership, even some formalities to be observed. For example, in order to “matriculate,” the boy or girl must first have an interview with the curator. Originally the only further requirement was the manifestation of continuing interest in class work. Later a small fee was added, chiefly for motivation, and now the gardener contributes to the support of the program by paying twenty-five or thirty-five cents for the season, according to the size of the plot he is cultivating. Further motivation is provided by a system of awards: a bronze pin for completing the three courses constituting the first year’s work; a bronze medal bearing the seal of the Garden for progress and responsibility in relation to succeeding courses and assignments; a silver pin for the completion of approved research on some such topic as “Economic Plants of the South” or “Herbs Used in Homes of Colonial Times”; and a silver medal for sustained and purposeful study over an extended period of time. These awards are achieved for progress, not merely for performance which surpasses that of other pupils. Moreover, the earlier bronze tokens are purchased by the pupils who have thus earned them in competition with themselves. This is a part of the “pattern” of motivation underlying the instructional program of the Garden. The silver awards are the gift of the Garden, intended as a mark of distinction for the completion of significant projects.

The “pattern” described by Mrs. Shaw is defined in terms of self-discipline, knowledge at firsthand, dignity of labor, financial support of one’s own work, generosity, ability to take a command and follow it, and the ability on the part of each pupil to appraise himself and his endeavors. Many boys and girls living in Brooklyn have started Saturday classes at the Botanic Garden at the age of eight and continued in regular attendance for eight or ten years.

Outlying schools arrange Elementary-school teachers in city school
tours of the neighborhood systems find many opportunities for enrichment of school courses by taking their pupils on planned tours of the variety of cultural centers which are maintained by public or private endowment in all well-to-do American cities. It is noteworthy that these cultural institutions are

almost universally co-operative in making their facilities and treasures available for the benefit of pupils of public or private schools. The assumption prevails that children in city schools generally enjoy the distinctive cultural advantage of the rare collections of art and science which are gathered in the museums, institutes, and gardens located in metropolitan areas. It is not so generally understood that the opportunities afforded by these cultural agencies are by no means evenly distributed among the pupils of the different schools in a large city school system.

The Hale Elementary School in Chicago is located eight miles from the Rosenwald Museum of Science and Industry; twelve miles from the Field Museum of Natural History, the Adler Planetarium and Astronomical Museum, and the Shedd Aquarium; and thirteen miles from the central Public Library. Miss Mabel Kastendiek, teacher, and Mr. Robert L. Grimes, principal, through the *Chicago Schools Journal*, describe the situation faced by such an outlying school and explain how they have managed to provide interesting experiences for their pupils through a series of tours to the institutions and enterprises that are found in a highly industrialized section of a very large city.

Pupils in the social-studies classes assembled the firm names and addresses of 125 manufacturing concerns located within a radius of two miles of the Hale School. The parent-teacher's association made the contact with a selected list of these firms and, within a short time, secured enough invitations to provide for a series of tours for a year in advance. The school staff publicized these arrangements through the community newspaper and announcements at meetings of local civic groups. This series of tours was conducted in keeping with accepted practice, including pre-excursion teaching, the excursion itself, post-teaching, and testing. The pupils prepared a list of questions indicating the things that they would like to learn and, three or four days in advance of the tour, mailed the list to the management of the plant to be visited. These questions were gratefully received by the managers because they were thereby enabled to make preparations for meeting the requirements of the tourists when they arrived. They served the further valuable purpose of convincing the managers that the tours were regarded by the pupils as

serious school business, not merely holiday jaunts. An hour or two is usually sufficient for a neighborhood tour, and many do not require carfare, lunch, or other expense. The parents are delighted, and the owners and managers of the plants have a better understanding of the work of the schools.

Study of the friendships among boys in Grade VI Teachers are sometimes concerned because of the varying degrees of popularity among the different members of even small classes of relatively homogeneous selection. Mr. Seth Phelps, sixth-grade teacher in the Laboratory Schools of the University of Chicago, is seeking information regarding the reasons for the friendly attachments which signalize the relations between some of the boys in his classroom and is hoping to find some clues to the status of relative isolation in which others of the group are lodged, either in refuge or in exile. Mr. Phelps's first exploratory step was to ask each boy in the room to list the names of his best friends and deposit the list in a "secret ballot box." When the tabulation was made, it was found that one boy's name appeared on ten different lists, another was named by eight of his classmates, a third was mentioned seven times, and the fourth in order was listed as among the best friends of six other boys. Eleven boys were chosen by four or more of their classmates. At the other end of the scale it was noted that seven boys in the class were not named as the best friends of any of their associates. In the report of his findings, which appeared in the "Laboratory Schools Staff News Letter" for December 13, Mr. Phelps expresses the opinion that the eleven boys most frequently mentioned really constitute the potential leadership of this sixth-grade class. Two of these he characterizes as unpleasantly aggressive but apparently capable of exercising leadership within their own age group in spite of this deficiency in social adaptation. The seven boys whose names did not appear on any of the ballots are to be the subjects of more extended inquiry, Mr. Phelps expressing the hope that further information about them may enable him to bring them out of their isolation. Each boy is being requested to explain, in another secret ballot, just why he likes the particular classmates he listed as his best friends.

NELSON B. HENRY

WHO'S WHO FOR MARCH

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by NELSON B. HENRY, associate professor of education at the University of Chicago. CHARLES H. JUDD, Charles F. Grey distinguished service professor emeritus of education and formerly chairman of the Department of Education at the University of Chicago, discusses the important place that social studies should occupy in the school and gives an outline of topics suitable for elementary-school and high-school grades. MATTHEW LUCKIESH, director of the Lighting Research Laboratory of the General Electric Company at Nela Park, Cleveland, Ohio, and FRANK K. MOSS, physicist, of the same laboratory, describe the muscular effort required in reading, the effect on reading of chronological age, the comparative effort required in near-vision and distant-vision tasks, and the relation of illumination to ease of reading. NEWMAN A. WADE, director of student teaching and principal of the College Elementary School at State Teachers College, Frostburg, Maryland, approaches the problem of the proper placement of Scottish children who come to American schools by showing the amounts of time given to elementary-school subjects in Scottish and American schools and comparing the achievements of the children of the two countries. ROY DEVERL WILEY, instructor in education and supervisor of student teaching at San Jose State College, San Jose, California, analyzes the arithmetical processes involved in actual problems encountered in natural situations by children in kindergarten and Grades I-VI. ELDON L. MCCOLLUM, director of music at Black Hills Teachers College, Spearfish, South Dakota, shows the importance of music in the school, describes a complete music program for the eight grades of the elementary school, and has a word to say about music in rural schools. LEILA STEVENS, teacher of Grade II in the Marquette School, Madison, Wisconsin, reports the findings of a detailed investigation of the amount of poetry presented, the subjects of the poems, and the poets most often represented in eleven series of readers for Grades II and III. FLORENCE L. GOODENOUGH, research professor in the Institute of Child Welfare at the

University of Minnesota, presents a list of selected references on preschool and parental education, including (1) technical and experimental studies and (2) nontechnical books and articles primarily for parents, teachers, and workers in the field of parent education.

The writers of reviews in the current number EFFIE G. BATHURST, consultant in rural education, formerly with the United States Office of Education. ARTHUR R. TURNER, M.D., assistant professor of pediatrics and physician in the Laboratory Schools at the University of Chicago. ABRAM W. VANDERMEER, member of the staff of the Laboratory Schools at the University of Chicago and director of visual education at Englewood Evening High School, Chicago, Illinois. DEWITT M. KELLEY, member of the staff of the University of Chicago Libraries.

A COMPLETE PROGRAM OF SOCIAL STUDIES

CHARLES H. JUDD

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GROWTH OF THE MOVEMENT FOR SCHOOL INSTRUCTION IN SOCIAL UNDERSTANDINGS

THE depression of the past decade, the national emergency which preceded the war, and, finally, the war itself greatly reinforced in American schools a movement which was gaining momentum before the beginning of the depression, namely, the movement to expand social studies.

Early in the century courses in civics were largely reconstructed. The schools borrowed the findings of the then new science of sociology and organized instruction in what was called "community civics." This took the place of the older civics, which consisted of formal descriptions of the structure of government. During the first World War the colleges organized the "War Issues Course," a course dealing with the economic and political conditions of the times. The United States Food Administration and the Bureau of Education, acting jointly, published leaflets entitled *Lessons in Community and National Life*. During the 1920's the school systems of the country experimented very generally with programs of various kinds of social studies. During recent months the United States Office of Education has published pamphlets with such titles as *Hemisphere Solidarity*, *Democracy in the Summer Camp*, and *What the Schools Can Do*. The Educational Policies Commission has been conducting a campaign to persuade schools to introduce courses on the meaning of democracy. Other civic and educational agencies have published syllabi and units of instruction designed to promote the teaching of duties of citizens and the nature of organized society.

Some lessons designed to cultivate social understanding have been taught in two of the traditional subjects of the curriculum, geography and history. Indeed, there are educators who recommend the complete combination, or "fusion," as they call it, of social studies, geography, and history. The recommendation for fusion has been most willingly accepted by those teachers and school administrators who are critical of the traditional division of the curriculum into separate subjects. Such critics of the ordinary school program are satisfied to have classroom exercises consist of units which, though comprehensive each in itself, do not form a sequential, systematic series. Fusion is also acceptable to teachers of geography. That subject has included much social material ever since the reforms which date back to the 1890's, when the study of the effects of the physical environment on human life largely superseded the study of physical geography. History, while resisting fusion with geography, has changed its contents to some extent and gives more attention than it formerly did to the consideration of such topics as the development of industry and the character of social customs.

The disposition to relegate the social studies to a subordinate place in the school curriculum is due in part to the fact that these studies are newcomers and find the curriculum apparently already overcrowded. Furthermore, the social studies encounter positive opposition in some quarters because they touch crucial issues on which there are violent disagreements among adults. The teacher who ventures an opinion on labor relations or on social security is not unlikely to be challenged by some board member or other citizen who holds opposite views. There can be no doubt that emphasis on the social studies will meet difficulties not always easy to overcome.

NEED OF A CORE PROGRAM IN THE SCHOOLS

In spite of all the obstacles in the way of the development of a vigorous separate program of social studies, it is clear that the time has come when world-conditions and the demands in this country for an intelligent citizenry require that schools take whatever steps are necessary to put into full effect a school program which will induct young people into an understanding of civilization.

Civilization, it is true, is in some measure dependent on physical

conditions, but geography cannot cover enough ground to include modern technology and economics; a steam engine and a bank are not geographic phenomena. Present-day civilization is also explained, to some extent, by the historical past, but it consists of present factors, such as industrial plants and their management, which are of vital interest to all who are later to be workers. The limits of history courses are such that these courses cannot give time to descriptions and discussions of distinctly modern creations.

Most of the difficulties that have stood in the way of the social studies in the past can be overcome if a large number of units of instruction are prepared which deal in a concrete and productive way with topics that are not now dealt with adequately in any part of the curriculum. Correlation of the social studies with history and geography and the use of historical and geographical facts in the social studies are entirely legitimate while fusion tends to submerge the study of society.

The school curriculum has long been in need of a vital core subject which will serve to unify everything that is taught into a compact organic program directed toward preparation for life. The social studies can become such a core if materials are prepared that justify making it a major subject from the first grade through all the levels of schooling—elementary, secondary, and collegiate.

GENERAL IDEAS BELONGING TO SOCIAL STUDIES

There are a number of general ideas which the social studies have a right to claim as peculiarly their own. If these are defined and made the bases for a systematic program, all the tentative experiments that have been going on in past years will reach their consummation in a curriculum which will overcome the confusion that is now all too prevalent. Most of the leading school systems of the country, at the present time, have commissions which are seeking to reorganize their curriculums. The situation is ripe for the social studies to lead the way to achieving the unification which is everywhere desired and sought.

1. The first general idea which belongs distinctively to the social studies is that of the social group. No human being lives without contacts with some of his fellow-men. The family, the tribe, the

classroom group, the playground group, the club, the team, the church, the community, and the nation—all are examples of social groups.

2. The second and perhaps the least recognized idea which is basic to the social studies is the idea of invention. Civilization as distinguished from savagery is the product of invention. Man has gained, in the course of his evolution, a large measure of mastery over his physical environment by making its forces serve his needs and desires. Not only so, but invention has created devices which are essential to social intercourse, such as weights and measures, number, and systems of communication. When one contemplates the importance of invention, one is astonished that the schools have not long since made this idea a major factor in their teaching. Studies of invention will do much to inspire personal initiative in pupils who are now far too frequently suppressed by the lessons that are taught them.

A source of simple but highly interesting examples of invention is the science of anthropology. The makers of school textbooks have drawn very little on this fertile source. History has confined its attention so strictly to recorded accounts of human activities that it has left entirely out of consideration or has seriously slighted some of the best examples of invention. Beginning its treatment of human institutions, as it does, with the period after records, especially documentary records, were invented, history dismisses in a sentence or two those marvelous achievements of human ingenuity, the alphabet and number.

3. Issuing directly from the study of invention is the general idea of organization. Group life at its higher levels is not merely loose association of many individuals; it is an orderly arrangement worked out in a systematic way. Each individual takes his place in a scheme of co-operation. The highest intellectual foresight is required to project a well-organized plan of operation in an army or in an industrial plant. The power to organize human groups is akin to the power that rearranges physical resources through invention.

The organization of man's own experiences is one of the most notable human achievements. The facts of life occur in chaotic succession. Nature does not distinguish biological happenings from

physical phenomena. Man takes the apparently chaotic happenings of the world, analyzes them, constructs systems which disentangle experiences, and classifies together like types of experiences. The result of analyses and classifications is organized science. It is not the function of the social studies to examine the contents of the sciences, but it is the function of these studies to show what arrangements society makes for the production of science. Social studies also teach how dependent society is on the sciences for the guidance of its policies and activities. For example, when the social studies deal with government, that institution is not to be thought of merely under the idea of group life; it is rather to be recognized that government is a service agency, putting men and things in such relations that they will not interfere with one another but will co-operate for the best good of all. In order to render services intelligently, government conducts elaborate investigations, the results of which determine policy.

4. A fourth general idea is that of conservation. Man is by nature wasteful. It is only when he learns to look far into the future and act in the interest of long-term advantages that he becomes truly civilized. Many of the mistakes that the human race has made are due to shortsightedness, to failure to conserve human and material resources. Social studies have the duty of exposing lack of conservation wherever it appears and showing the importance of positive measures of conservation.

5. A fifth general idea is that of adaptation. There are situations in which man cannot adjust the physical environment to his wishes. For example, man cannot change the climate; he cannot abate storms. What he can do is to devise means of forewarning himself so that he can arrange his life in the light of his information about uncontrollable forces. Similarly, man has learned the wisdom of social adaptations. In order that one may enjoy social opportunities, one must often step aside and allow others to have the right of way.

There are other ideas which might be added to the foregoing list, but enough has been said to justify the contention that social instruction can properly demand the right to an independent and major place in the school curriculum.

GRADE PLACEMENT OF SOCIAL STUDIES

Before the outline of a complete program of social studies is taken up in detail, it will be well to comment briefly on the problem of grade placement of the units of such a program. Many school systems are conservative in spite of the evident propriety of giving social studies their rightful place in every grade. To such conservatives it can be recommended that they experiment with a series of social studies in that part of the school which is, at the present time, more flexible than any other, namely, the junior high school. If a school system does not have a junior high school, it should certainly not postpone social studies beyond the seventh grade. By the time pupils finish the sixth grade they are mature enough so that they look forward to their personal futures. They begin to think of their relations to society and will continue to do so even if the school does not recognize the wisdom of satisfying their need for direct preparation for their mature lives through social studies.

There is one compelling argument in favor of beginning social studies early. Experience has shown that, if the study of social conditions is postponed to the senior high school or, still worse, to the college, learners lack the background of concrete experience necessary to make their studies fruitful. Only when pupils have had continuous contact with general ideas about society and only when they have been given illustrative experiences suitable to make these ideas familiar and vivid will they be able to cope with the complex problems which arise when they reach the stage of participating in the critical examination of social policies.

GRADE TOPICS FOR A CONTINUOUS SOCIAL-STUDIES PROGRAM

If it is assumed that the program of social studies does not need to be telescoped into a limited period in the junior and senior high schools, the following series of grade topics can be adopted as constituting a continuous program which is in keeping with the existing trends of instruction in American schools.

The primary grades have two important functions. First, they should give the pupils practical instruction with regard to group life. This instruction can begin with the classroom group. Pupils

should learn to wait for their turns before they begin to speak, to arrange their belongings so as to keep them out of other people's way, and to defer to other people's wishes. Second, these grades should go as far as they can in preparing pupils to use the most fundamental social art, the art of communication. Primary-grade instruction in speaking, reading, and writing should not, because of the immaturity of the pupils, attempt to enter into any elaborate treatment of the nature of communication. That study belongs in a later grade.

By the time pupils reach the closing weeks of the third grade, and certainly by the time they enter the fourth grade, they are ready to study the various ways in which men have been related to the physical environment. Since the early phases of geography are introduced in most schools at this stage, the social studies can very properly take the form of what may be described as "regional studies." Men have adapted themselves to the climate, rainfall, and natural resources of the particular parts of the world in which they make their homes. They have shown that they are inventive in making adaptations to their surroundings by building shelters, providing themselves with clothes, and inventing simple tools. The fourth grade will have no difficulty in filling a complete year's program if it studies what has happened in the various regions of North America from the time of the Indians to the present.

For example, in the Tennessee Valley the Indians found game in abundance in the well-watered forest. They hunted, fished, and collected berries and roots and were content with their simple life. When the white settlers came, they cut down the forest and plowed up the ground. The rains washed away the soil and flooded the rivers. White settlers did not adapt themselves to nature. The necessity of drastic measures of conservation resulted from man's misuse of natural resources. Here the federal government stepped in and, by utilizing the rivers for water-power and by storing the surplus water in artificial lakes created by great engineering constructions, began the restoration of the region and the rehabilitation of the population.

A regional study such as that sketched can be made to teach many

of the fundamental ideas of the social studies in simple concrete terms entirely intelligible to fourth-grade pupils. There is no need of any theoretical or abstract reasoning. If pictures are used along with reading materials, pupils will gain mental imagery which later will be useful when they come to the stage of wrestling with more intricate social problems.

Other regions of North America can be studied in much the same way that the Tennessee Valley would be studied if the foregoing outline were filled in with appropriate details. The Great Plains saw the buffalo period and the cattle period, both of which used the natural grass. They saw the settlers come in after the cattle period and plow up the sod, thus creating the dust bowl, which showed that adaptation to the physical environment had been neglected.

The desert region which is now part of California, Arizona, and New Mexico was in the Indian days the cradle of corn agriculture. There was no hunting on a large scale in that region, and man was compelled to raise his food by tilling the soil.

As various regions are studied, it is seen that the kinds of dwellings which the Indians built exhibited dependence on the physical surroundings for the materials used. In the later stages of human evolution dependence on the immediate environment for building materials became less and less necessary. Man discovered new materials that he could use and then created systems of transportation.

After studying the regions of North America in the fourth grade, pupils are ready in the fifth grade to extend their horizons by traveling with Marco Polo, migrating with the early Norwegians to Iceland and Greenland, exploring the upper Amazon to find examples of the most primitive human life in the Western Hemisphere, and voyaging with early American whalers into the South Pacific, where now the United States has a naval station in Samoa.

Lessons in international relations can be taught by the use of the topics listed. Concrete lessons of this kind will leave lasting impressions on the minds of pupils. There are many other captivating topics which can be used to make clear what international relations should be. Lessons about tin, coffee, and rubber teach the necessity which this country is under of importing essential commodities that it needs but cannot produce.

The programs here outlined for the fourth and fifth grades constitute a block of closely related social studies which show what adaptation to the physical environment is and include also enough references to invention, conservation, and organized trade and travel to prepare the way for later studies.

The sixth grade can be made one of the most interesting grades of the elementary school. The major theme to be emphasized in the social studies at this level is invention. Here pupils can be taught how man learned to make and use fire; how he domesticated plants and animals; how he took power from the wind, from running water, and from steam. Stories of primitive tools and of the invention of the wheel prepare the way for the later study of airplanes and automatic machinery and make perfectly clear the progress of man in reconstructing his world.

The study of typical inventions in the sixth grade can properly be followed in the seventh grade by a study of modern industries, the topics treated in the two grades together making a block dealing with invention and its applications. A study of industries can begin with the three that reach back into remote antiquity: the weaving of textiles, the milling of grain, and the preserving of food. Additional lessons can be introduced dealing with such industries as printing, the making of glass, and the production of automobiles and ships.

The eighth grade should be devoted to the study of organized administrative institutions, the most important of which is government. If the program of this grade is properly conducted, pupils will gain an understanding of the federal government of the United States as something more than a remote law-making and law-enforcing machine. Pupils will learn that the Department of Agriculture is a great scientific agency that helps the farmers to supply the nation with food. They will learn what most American citizens do not know, namely, that the federal government carries on highly important researches at Langley Field, one of the leading laboratories in the world for the study of aviation, and that the Bureau of Standards of the Department of Commerce makes investigations in physics and chemistry which are indispensable to industry.

After studying organized administrative institutions in the eighth

grade, pupils can take up intellectual institutions, such as language, number, and time-measurement, in the ninth grade. The topics assigned to the eighth and ninth grades form a third block of closely interrelated subjects of study.

If any telescoping of the program of the social studies is necessary, the block covered in the fourth and fifth grades, that covered in the sixth and seventh grades, and the block described in the two immediately preceding paragraphs can be moved up to the seventh, eighth, and ninth grades, each block being treated as a unit.

In the three grades of the senior high school it is possible and appropriate for pupils who have been made acquainted with many concrete examples of human achievement in the grades below to study the problems of modern society. They can form intelligent opinions on the questions that arise in connection with the international relations of this country and in connection with the public debt, which results in part from services rendered and in part from investments in the Panama Canal, Boulder Dam, and other reclamation projects. They can discuss unemployment and public works, forestation, and the maintenance of public parks. They can consider the systematization of transportation and the construction of highways. They can study the problem of the ownership of public utilities.

An argument should perhaps be entered at this point for including the discussion of public problems such as those listed in the curriculum of the senior high school. The youth population of the United States is more fully represented in the high schools than in the institutions of higher education. If there is to be in the next generation trained ability to cope successfully with social problems, the public schools will have to include in their curriculums, as they never have in the past, comprehensive courses in the social studies.

ACHIEVING INTERNAL UNITY IN THE SOCIAL-STUDIES PROGRAM

The internal unity and the sequential character necessary for a well-organized program of social studies are not achieved through any simple formula such as those which produce the corresponding virtues in geography and history. In geography it makes no difference how complex the account of a particular country becomes; the

transition to the next stage of the subject is determined by space relations. The second country or section of a country to be studied lies to the north, south, east, or west of the first. In history the sequence is in time. Chronology is the thread on which events are strung, one after another. The successive steps of the social studies constitute a far more complex sequence, that of human evolution.

Man began his career on the earth in small, closely related groups, which from the first survived through the exercise of superior intelligence. There was communication among the members of the earliest social groups. There was ingenuity in finding shelter in caves or in constructing crude dwellings. Weapons and tools were devised and employed in the struggle for survival. Intelligence did not, however, have full scope in primitive society. The physical surroundings were too exacting in their toll on human energy. Man was engrossed in meeting the hourly demands on his strength and ingenuity. He had very little surplus which he could employ in forward-looking constructive activities.

Little by little, man mastered the physical environment and expanded the size and strength of his social associations. The time came when co-operation made possible a division of labor and inventiveness became a major factor in the evolutionary process. The sequence is not so much a sequence of time as of mounting achievement.

Once invention moved into its full stride, the possibilities of organization and of institutional expansion were limited only by the necessity of fitting into a harmonious whole the many factors that a rapidly moving evolution created.

Solving the problems of expanding social life became increasingly difficult as the higher levels of achievement were reached. When man became master of his physical environment, he not infrequently overused or even misused his power. The inevitable result was that slowly and subtly nature retaliated and compelled man to learn wisdom. In similar ways the laws of social organization assert themselves when men fail to work out social adjustments that comport with their economic, industrial, and national progress. The evolutionary process is by no means completed. That is the reason why

oncoming generations must be educated to an understanding of social problems.

There is in the succession of achievements of the human race a definite and readily discernible sequence. If this sequence is followed, it gives to the social studies an order and integrity far more significant as a means of preparing young people for life than anything that is taught in the other subjects in the school curriculum.

KINDS OF INSTRUCTIONAL MATERIALS NEEDED

The social studies will fail of their purpose if they are taught as mere series of factual items. They must not be allowed to degenerate into formal repetitions of authoritative statements. Pupils must have example after example of the various stages of evolution until an appreciation is gradually developed in their minds of the struggle that was involved in reaching each higher level. The instructional materials necessary to create this appreciation cannot consist of condensed, abstract sentences such as are characteristic of ordinary school textbooks. There must be a series of reading units as fully illustrated as possible with pictures and concrete details. These must be discussed, not dissected, in classroom exercises.

If instructional units of the kind here called for are made available, they not only will serve as the basis for classroom exercises; they will also stimulate independent reading on the part of pupils far beyond the requirements imposed by any outside coercion. The number of topics that are illustrative of every stage of human evolution is unlimited. The few titles which have been mentioned in earlier sections of this article suggest the kind of materials appropriate for each grade but do not indicate in any adequate measure the scope and range of possible topics. Classroom libraries should be developed which will open up to pupils opportunities for endless interesting explorations suggested but by no means exhausted by classroom exercises.

As the social studies take the place which they are destined to take in the schools, they not only will furnish new contents greatly enriching the school curriculum but also will work a reform of far-reaching importance in methods of instruction and learning.

THE TASK OF READING

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DURING the course of a series of researches in seeing,¹ it was found that adult subjects read material such as *The Outline of History* by Wells at the rate of about twenty-three four-inch lines per minute during a period of one hour of continuous reading. If this rate were maintained during an eight-hour day, the eyes of the reader would critically traverse about thirty-seven hundred feet of printed matter, or more than two-thirds of a mile. An additional two-thirds of a mile would be traversed noncritically during the shift in fixation from the end of one line to the beginning of the next line. These eye-movements are accomplished by the simultaneous action of six extrinsic muscles of each eye, operating in highly precise co-ordination with similar muscles of the other eye and with various skeletal muscles governing posture. In addition, the crystalline lenses must maintain a fairly exact focus while the eyes oscillate in their sockets during the processes of reading.

The muscular effort expended in these transverse movements is augmented by the fact that the point of fixation does not travel along a line of print steadily and without interruption but, rather, progresses by a series of short movements alternating with brief pauses. Various investigations have shown that the adult reader at the college level makes, on the average, about six such movements and pauses during the reading of a single line of print. However, the muscular effort expended by children in reading a given amount of material appears to be much greater than that expended by the adult, as will be evident from Figure 1. These curves show the decreasing number of fixations and regressions per line as the child

¹ Matthew Luckiesh and Frank K. Moss, *The Science of Seeing*. New York: D Van Nostrand Co., 1937.

grows older. In the case of the typical adult reader, the ocular muscular mechanisms may be "started" and "stopped" about seventy thousand times during the course of an eight-hour period of reading. It is during these pauses (of about 0.15 of a second) and not during the movements that the visual patterns are understood or read.

If, for each fixational step or movement of the eyes, a person took a step in walking, the task of reading for eight hours would be equiv-

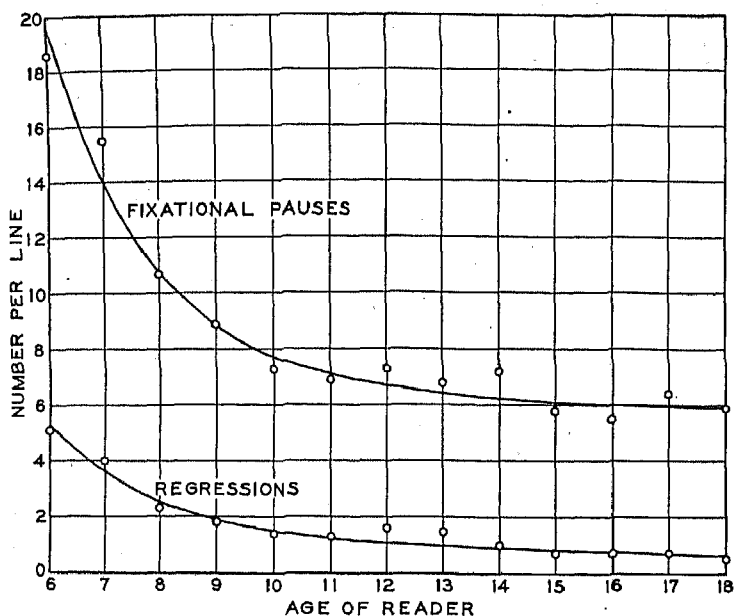


FIG. 1.—Effect of age on the number of fixational pauses and the number of regressions during reading (data from Guy Thomas Buswell, *Fundamental Reading Habits: A Study of Their Development*, pp. 26, 34. Supplementary Educational Monographs, No. 21. Chicago: Department of Education, University of Chicago, 1922).

alent to walking about thirty-three miles during a day's march. This march could be accomplished, at army cadence, in about ten hours, but it would be an extremely difficult task to perform day after day, even under the most favorable conditions. Obviously, if the visual task of reading is as severe as this analysis and analogy indicate, it is to be expected that the reader would experience fatigue and would demand frequent rest periods. Such rest periods are provided, both voluntarily and involuntarily, by the reader in

many ways. From the less obvious involuntary viewpoint, it has been stated that one of the reasons for blinking is to alter the tension of the ocular muscles at frequent intervals as a means of preventing early fatigue. Records of the rate of blinking indicate that the average reader blinks about six times a minute, although some readers blink at ten times this rate. Thus the movements of blinking seem to provide numerous respites, both muscular and mental, from the critical task of reading. Nevertheless, continuous reading even for one hour alters, temporarily but markedly, the tonus of the extrinsic muscles, as has been shown by measurements made with an ophthalmic ergograph.¹ The severity of the task of reading is also suggested by the loss in visual efficacy during the course of an hour of reading, which is indicated by the data of Figure 2.

In this comparison of dissimilar tasks, it is a reasonable teleological assumption that the normal musculatures of the eyes and of the legs are equally capable of performing their respective normal functions. Moreover, it is to be recalled that the human ocular mechanism developed for the easy tasks of predominantly distant vision rather than for the relatively difficult tasks of prolonged near vision—and particularly for the critical and unnatural task of reading. Furthermore, from the viewpoint of evolution, the transition from predominantly distant-vision tasks to near-vision tasks has been abrupt. For example, it has been estimated that we use our eyes in critical near vision approximately 30 per cent longer each day than did our parents a generation ago.

There is no defined border line between near vision and distant vision. In general the term "distant vision" pertains to objects located about twenty feet from the eyes and "near vision" to those within arm's reach. Ophthalmology associates distant vision with ocular relaxation and, conversely, near vision with some ocular strain. Because of their short arms, young children naturally hold a printed page closer to their eyes than do adults. In partial compensation, children generally possess greater reserves in accommodation and convergence. However, the eyes of most young children

¹ M. Luckiesh and Frank K. Moss, "Fatigue of Convergence Induced by Reading as a Function of Illumination Intensity," *American Journal of Ophthalmology*, XVIII (April, 1935), 319-23.

are also farsighted, or hyperopic. This condition is usually due to the fact that their eyeballs are not spherical but are somewhat flattened along the axis of sight—a defect which is normally corrected during growth. Thus, during early childhood, rays of light from a distant object would generally be brought to a focus behind the

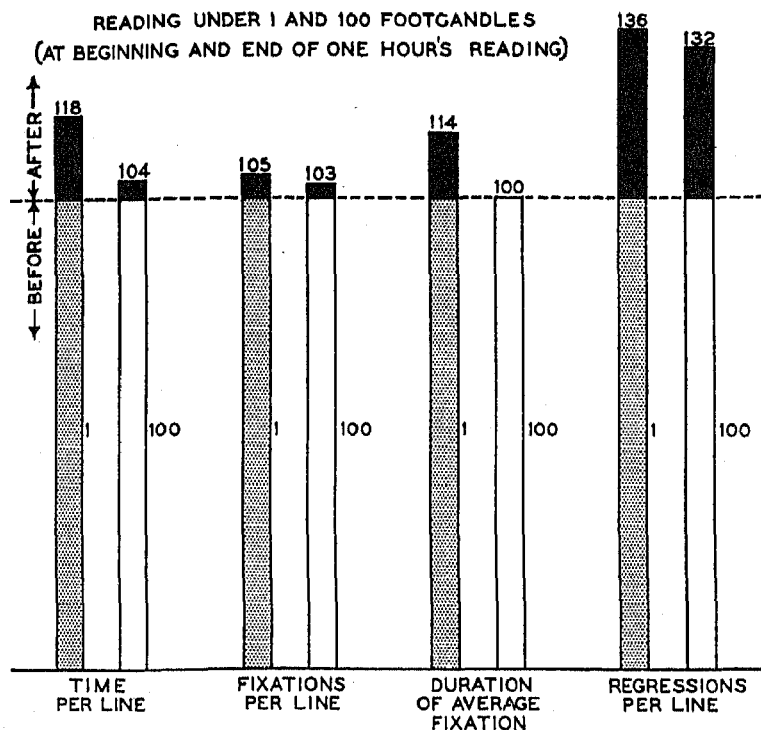


FIG. 2.—Relative changes occurring in the processes of reading during an hour of reading (indicated by the black portions of the block diagrams).

retina if it were not for the fact that accommodation comes into play and moves the focus forward until the image of the object falls upon the retina. Thus even distant vision in early childhood may involve an abnormal expenditure of muscular effort when appraised from the basis of adult ocular musculature.¹ Obviously an even greater expenditure is involved in near vision. Fortunately most

¹ Matthew Luckiesh and Frank K. Moss, "Functional Adaptation to Near-Vision," *Journal of Experimental Psychology*, XXVI (March, 1940), 352-56.

young children do not voluntarily concentrate for long periods on critical near-vision tasks.

Human beings must learn to see as they must learn other things. However, because learning to see takes place at an early age, the successes and the failures are not always obvious. Human eyes evolve physically for some time after birth, and faculties such as orientation, accurate fixation, and complete binocular fusion of the retinal images are gradually acquired. Some authorities state that these visual processes are fully developed at the age of six years, while others maintain that these mechanisms continue to develop long after that period. At any rate, critical tasks of near vision are imposed on children at an extremely early age in relation to the period of years required for complete development of visual faculties. From this viewpoint, the statistics of defective vision have more meaning. In particular, the rapid increase in myopia, or nearsightedness, among children as they advance in school suggests the possibility that educational achievement may be purchased, to some extent, at the expense of ocular welfare. At any rate, these considerations suggest that near-vision tasks should be minimized during childhood and that all aids to seeing should be provided in order to alleviate the severity of prolonged tasks of reading and slavery to near vision.¹ Two outstanding aids toward easier seeing are improvements in typography and in illumination.² The fact that many persons must utilize eyeglasses is further evidence of the severity of our present-day tasks of near vision. These crutches may also be visible evidence of the penalties of neglect in utilizing available knowledge and aids to seeing.

¹ Matthew Luckiesh and Frank K. Moss, "Effects of Classroom Lighting upon Educational Progress and Visual Welfare of School-Children," *Illuminating Engineering*, XXXV (December, 1940), 915-38.

² Matthew Luckiesh and Frank K. Moss, "Visibility and Ease of Seeing," *Industrial Medicine* (Industrial Hygiene Section), IX (January, 1940), 33-39.

INSTRUCTIONAL PROGRAMS IN SCOTTISH PRIMARY SCHOOLS COMPARED WITH ELEMENTARY-SCHOOL PROGRAMS IN THE UNITED STATES

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IN WHAT grade should the Scottish pupil who has passed the qualifying examination at the end of the primary school be placed in a school in the United States? Is the Scottish pupil equipped to enter Grade VII, VIII, or IX of a school in this country? If the principal accepts the evaluation of an American writer and expert on foreign educational systems, he will place the Scottish graduate in Grade VII or in the first year of junior high school or possibly in Grade VIII.¹ If he follows the evaluation of a prominent Scottish layman, he will enrol the Scottish pupil in Grade IX.² The purpose of this article is to throw some light on the issue by a discussion of the following questions: (1) How does the total time which the qualified Scottish pupil has spent in the primary school compare with the total time which the American pupil has spent by the end of Grade VIII? (2) In what general respects has the Scottish primary-school graduate's curriculum differed from that of the American pupil who has completed the work of Grade VIII? (3) As judged by American standardized achievement tests, how does the Scottish "eleven-year-old's" achievement compare with that of American school children?

TOTAL NUMBER OF CLOCK HOURS SPENT IN ELEMENTARY SCHOOLS

The Scottish pupil enters school at about five years of age. Under normal conditions he spends two years in the infant division, two years in the junior division, and three years in the senior division.

¹ James F. Abel, "Education in England and Wales, and Scotland," *School Life*, XXVI (November, 1940), 44-46.

² Garnet D. Wilson, "A Glimpse at American Schools," *Scottish Educational Journal*, VIII (February 20, 1925), 186-87.

The primary-school code requires a year of forty weeks. Thus a primary-school graduate who has made normal progress and has attended every day has spent 280 weeks in school.

Table 1 shows the total number and distribution of clock hours which the graduate of a Scottish primary school and an eighth-grade graduate in the United States have devoted to all subjects. The data for Scotland are based on the suggestive timetables presented for the guidance of head teachers in the county of Dunbarton. Although the timetable for each school in Scotland must be approved by an inspector and no attempt at uniformity is made, there is more uniformity in timetables in Scotland than in the United States. The time allotments probably more nearly approximate minimum than average practice. For the United States the data are based on the average time allotments, excepting recess periods, reported by Kyte and Lewis in their study of eighth-grade timetables in sixty-three cities in 1934-35. The length of the school year in 1936 was obtained for sixty-one of the sixty-three cities.¹ The range in the number of school days was from 168 to 199. In terms of weeks, the average was 36.5, or 2.7 weeks above the average for elementary schools for the entire country.² Because of reclassification, differences in subjects, and the tendency to use activities, the subject categories vary somewhat. Consequently the data should be regarded as approximate only.

The Scottish primary-school graduate has had an opportunity to devote a total of 7,016 clock hours to the study of all subjects, while the eighth-grade graduate in this country has had at his disposal 7,680.1 clock hours for the study of all subjects. In other words, the Scottish child who has completed the primary-school curriculum has had 664.1 clock hours—25.3 weeks in the cities included in Kyte and Lewis' survey—less than the eighth-grade graduate.

However, based on the average length of the school year in the elementary schools in the United States in 1936, the average eighth-

¹ *Statistics of City School Systems: 1935-36*, pp. 28-46. *Biennial Survey of Education in the United States: 1934-36*, Vol. II, chap. iii. United States Office of Education Bulletin No. 2, 1937.

² *Elementary Education: 1930-1936*, p. 19. *Biennial Survey of Education in the United States: 1934-36*, Vol. I, chap. i. United States Office of Education Bulletin No. 2, 1937.

TABLE 1
DISTRIBUTION OF TOTAL NUMBER OF CLOCK HOURS DEVOTED TO
SUBJECTS IN ELEMENTARY SCHOOLS IN SCOTLAND AND
IN THE UNITED STATES

Subject	NUMBER OF CLOCK HOURS		PERCENTAGE	
	Scotland (7 Years)*	United States (8 Years)†	Scotland (7 Years)	United States (8 Years)
Three R's:				
English‡	2,640	3,012.5	37.6	39.2
Arithmetic	1,000	927.7	14.2	12.1
Total	3,640	3,940.2	51.8	51.3
Content subjects:				
Social studies§	520	1,054.2	7.4	13.7
Nature study and science	300	285.3	4.3	3.7
Total	820	1,339.5	11.7	17.4
Special subjects:				
Art and drawing||	380	433.1	5.4	5.6
Music	363	413.1	5.2	5.4
Industrial arts and handwork¶	610	271.9	8.7	3.5
Health education and physical training**	363	696.5	5.2	9.1
Opening exercises		184.9		2.4
Miscellaneous		400.9		5.2
Total	1,716	2,400.4	24.5	31.2
Religious instruction††	840		12.0	
Total all subjects	7,016	7,680.1	100.0	99.9

* County Council of Dunbarton, Education Committee, *Schemes of Work for Primary Schools* (Approved by the Scottish Education Department on 13th June, 1939), pp. 35-36.

† Data adapted from George C. Kyte and Robert H. Lewis, "Time Tables—Sixty-three School Systems Report Time Allotted to Elementary Subjects," *Nation's Schools*, XVII (January, 1936), 23-25.

‡ In Scotland, English includes oral and silent reading, literature, spelling, dictation, grammar, and speech-training; in the United States, it includes oral and silent reading, phonics, literature, spelling, writing, composition, grammar, and drill on English usage.

§ In Scotland, social studies include geography and history; in the United States, geography, history, citizenship, government, safety education, thrift, and morals are included.

|| In the United States, art includes picture study.

¶ In Scotland, this subject includes handwork and needle-work for girls in intermediate and upper stages; in the United States, it includes household and industrial arts in the upper grades.

** In the United States, health education includes hygiene, physiology, health study, athletics, gymnastics, calisthenics, folk dancing, and directed play.

†† Religious instruction includes occasional lessons in temperance, hygiene, and citizenship.

grade graduate has had 270 weeks of total schooling compared with 280 weeks for the Scottish graduate. This is, of course, exclusive of kindergarten experience, which does not raise the grade classification of the American pupil who has had such experience.

DISTRIBUTION OF TOTAL NUMBER OF CLOCK HOURS
ACCORDING TO SUBJECTS

A comparison of the allocation of the total number of clock hours among the various subjects in the curriculum in the seven-year primary school in Scotland and in the eight-year curriculum of the American elementary school reveals some outstanding differences in the experiences and backgrounds of the Scottish and American school graduates. The data in Table 1, supplemented by the writer's study of, and observation in, Scottish schools, are used for this purpose.

The most marked difference between the Scottish primary-school curriculum and the American elementary-school curriculum is the presence of religious instruction in the former and the absence of it in the latter. The Scottish pupil who has reached the qualifying examination (an examination at the end of the primary school to determine fitness for promotion to a post-primary course) has devoted 840 clock hours, or 12 per cent of his total school time, to devotional exercises and to Bible study, including occasional lessons in hygiene, citizenship, and temperance.

To the tool subjects the Scottish graduate has devoted 3,640 clock hours compared with the 3,940 clock hours of the eighth-grade graduate in this country. However, the relative proportions of the total time spent in learning the tool subjects are approximately the same, 51.8 per cent for the Scottish graduate and 51.3 per cent for the American eighth-grade graduate. Of course, if religious instruction is excluded, the percentage is increased for the Scottish pupil.

The Scottish primary-school graduate has devoted to the study of arithmetic a greater number of clock hours and a higher percentage of his total school time than has the eighth-grade graduate in America. Arithmetic holds a strong position in Scottish schools in spite of attempts to reduce the proportion of time devoted to it. One reason for arithmetic's prominence is its use in the qualifying examination. Particularly in the beginning stages is more emphasis

given to arithmetic in Scotland than in this country. A recent investigation¹ of the time allocated to all phases of arithmetic in Scotland shows that the median allocations per week are three hours and thirty-nine minutes for stage 1 and three hours and forty-eight minutes for stage 2. The schemes of work usually call for about two hours a week at these stages. Four hours are usually suggested as the minimum weekly time allowance for the five stages above the two-year infant department. This study reveals for these stages a range in medians from four hours and eighteen minutes to four hours and thirty-six minutes. That the median time is larger than the time allotments usually suggested is due perhaps to supplementary study of tables and short periods of mental arithmetic.

Attention should be called to other basic differences in the tool subjects in Scotland and in this country. More emphasis is placed on work-type silent reading in American elementary schools than in Scottish primary schools. The Scottish graduate has had more drill in spelling and dictation, more work in grammar and written composition, and more speech-training and choral reading than has the American eighth-grade graduate. Whether the Scottish pupil by the end of the primary-school period has had more or less work in oral language, he has not developed the fluency and poise in oral expression that many American sixth-grade pupils and most eighth-grade graduates have attained. However, in general he seems to have developed a greater power in written language than have most eighth-grade graduates. The greater ease of the American school child in oral expression is perhaps explained by the greater freedom permitted in both the home and the school in America. In arithmetic the Scottish primary-school graduate has devoted a considerable part of his time to mental arithmetic, to memorizing tables, and to mechanical operations. Whether he has had more or less experience in problem work than has the American eighth-grade graduate, he has had more drill in the subject. The Scottish pupil has had to struggle also with the complicated British monetary system.

It is in the content subjects that the Scottish primary-school

¹ *Studies in Arithmetic: Reports on Investigations Relating to Present Practice and Teaching Methods in the Primary School*, I, 7. Publications of the Scottish Council for Research in Education, XIII. London: University of London Press, Ltd., 1939.

graduate's background suffers most in comparison with the pupil who has completed the eighth grade in this country. The former has had a total of 820 clock hours in history, geography, and science and nature study compared with the 1,339.5 clock hours which the latter has had in the social studies and science. The percentages of total time are 11.7 for the Scottish graduate and 17.4 for the American eighth-grade graduate. In nature study and science the Scottish pupil has spent 300 clock hours, 4.3 per cent of his total school time, compared with the American pupil's 285.3 clock hours, or 3.7 per cent of his school time. However, the American eighth-grade graduate has devoted more than twice the number of clock hours to the social studies than the Scottish pupil has spent in the study of history and geography. The content of the Scottish pupil's history has not included American history. The fact that the Scottish pupil has had considerable Bible study may be regarded as adding some content to his curriculum.

In the special subjects the total number of clock hours for the Scottish graduate is 1,716 compared with 2,400.4 clock hours for the eighth-grade graduate. The figures for the Scottish pupil are lowered because "opening exercises" and "miscellaneous" are not included. The most important differences between the Scottish pupil's time allocations and those of the eighth-grade pupil are found in industrial arts (or "handwork" as it is called in Scotland, including needlework for girls above the infant department) and in health education and physical training. In handwork the Scottish graduate has had 610 clock hours compared with the 271.9 clock hours of the eighth-grade graduate. The percentages are 8.7 for the Scottish graduate and 3.5 for the American eighth-grade graduate. However, in American schools some of this type of work is included in other units.

The eighth-grade graduate has devoted almost twice as much time to health education and physical training as the Scottish graduate has spent in physical training. However, it should be said for the Scottish pupil that the time allocated to physical training has been increased in recent years and that some work in health and temperance is carried on in occasional periods. Evidence of the tendency to emphasize physical education is found in Scottish Education De-

partment Circulars¹ and in a recent report of the Scottish Education Reform Committee,² which recommends for the highest classes of the primary school two and one-half hours a week for physical education—exercises, hygiene, games, and dancing.

ACHIEVEMENT OF SCOTTISH PUPILS ON AMERICAN STANDARDIZED ACHIEVEMENT TESTS

That the time spent in the Scottish primary school is well spent, at least in the tool subjects, may be judged from the results attained by Scottish pupils on an American standardized achievement test. In June, 1931, MacGregor,³ director of education in the county of Fife, administered Form 2 of Battery A of the Public School Achievement Tests to 5,961 pupils (2,978 boys and 2,983 girls). At the date of the test the median age of the pupils was 11 years and 4.1 months; the range, 10 years and 10 months to 11 years and 9 months. The pupils formed 95 per cent of the entire eleven-year-old group of pupils in the county of Fife, regarded as a typical education area in Scotland. The pupils were distributed as follows: post-primary, 12 per cent; last year of primary school, 47 per cent; next to the last year of primary school, and lower classes, including special and adjustment classes, 29 and 12 per cent, respectively.

The results of the Public School Achievement Tests are presented in Table 2 in terms of the grade equivalents provided in the test manual. Based on the total score of the five subjects in the test, the median grade equivalent for the Scottish "eleven-year-olds" falls at the midpoint of the seventh grade, while the grade equivalents for the first and third quartiles are 6.0 and 8.8, respectively. Weighting the scores to reduce the influence of language usage and spelling, MacGregor arrived at a grade average of 7.2. The achievement in reading is the lowest of the five subjects. The first quartile is two

¹ *Physical Education and Physical Well-being*, Circular No. 96 (January 6, 1936), and Circular No. 98 (March 25, 1936). Edinburgh: Scottish Education Department.

² Education Reform Committee, *Report on the Primary School*, p. 43. Edinburgh: Educational Institute of Scotland, 1939.

³ Gregor MacGregor, *Achievement Tests in the Primary School: A Comparative Study with American Tests in Fife*. Publications of the Scottish Council for Research in Education, VI. London: University of London Press, Ltd., 1934.

months below the grade equivalent of the fifth-grade pupil in this country; the median, two months above the sixth grade. However, the third quartile is at the beginning of the eighth grade.

When the results of these tests are interpreted, several factors should be kept in mind. Only 12 per cent of the Scottish pupils—that is, the post-primary pupils—had spent eight years in school. Forty-seven per cent of the pupils were completing the seventh year in school—that is, were at the qualifying stage. Twenty-nine per

TABLE 2
GRADE EQUIVALENTS OF SCOTTISH "ELEVEN-YEAR-OLDS"
ON PUBLIC SCHOOL ACHIEVEMENT TESTS, FORM 2

Subject Test	Lower Quartile	Median	Upper Quartile
Reading.....	4.8	6.2	8.0
Arithmetic Computation..	5.8	7.5	9.2
Arithmetic Reasoning....	5.8	7.0	7.8
Language Usage.....	6.2	7.8	9.2
Spelling.....	7.2	8.2	9.3
Total.....	6.0	7.5	8.8

cent of the pupils were one year below the qualifying stage. Twelve per cent were two years or more below the qualifying stage, and those belonging to adjustment classes never reached the qualifying stage. Finally, slightly below 10 per cent of Scottish pupils who are presented for the qualifying examination fail to pass. When all these factors are considered, it is clear that, even in reading, the Scottish primary-school graduate will compare favorably with the average graduate of an eighth grade in this country, where promotion is freer from grade to grade.

CONCLUSIONS

In terms of the three questions analyzed in this paper, the following conclusions seem warranted.

1. The Scottish primary-school pupil has had in seven years the equivalent of only twenty-five weeks' less schooling than that provided in Grades I-VIII, inclusive, in the typical American city represented in the study of Kyte and Lewis. The average length of the

school year in sixty-one of the sixty-three cities was 36.5, almost three weeks above the average for the length of the school year in elementary schools throughout the country.

2. Based on an average length of 169 days for the elementary-school year in this country in 1936, the Scottish primary-school graduate has had the opportunity of attending school for 280 weeks compared with a total of 270 weeks for the American pupil in Grades I-VIII, inclusive.

3. After due allowance has been made for arithmetic content peculiar to the British Isles, the Scottish primary-school graduate is probably as well equipped to study mathematics in American schools as is the average eighth-grade graduate.

4. In the work-type silent reading used in eighth-grade social studies, the below-average Scottish primary-school graduate might have some difficulty.

5. While the Scottish graduate would probably appear at a disadvantage in oral expression in Grade VII, his power in English composition and spelling would compare favorably with that of the best eighth-grade graduates in this country.

6. In nature study and science the Scottish graduate is likely to be as well prepared as is the typical eighth-grade graduate, while in health education his background is probably poorer than that of seventh-grade pupils.

7. The Scottish graduate's background in the field of social studies is probably inferior to that of most seventh-grade pupils in this country.

8. The Scottish graduate is probably as well equipped as the typical eighth-grade graduate.

Finally, it seems reasonable to conclude that the Scottish pupil who has passed the qualifying examination should be placed not lower than Grade VIII in any American school. If he is from the upper fourth of the qualifying class, he would probably be able to perform successfully the work of Grade IX. On the other hand, if he is an "age-pass" pupil from a local education area in Scotland which employs the qualifying examination to determine promotion to a post-primary course, he may have some difficulty in carrying eighth-grade work.

ARITHMETICAL PROCESSES NEEDED BY CHILDREN

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PURPOSE OF STUDY

THE purpose of this investigation was to determine which of the arithmetical processes receive greatest use in the solving of functional problems of elementary-school children. The data were gathered in the urban and rural schools of Santa Clara County, California. The participants were children enrolled in kindergarten and Grades I-VI, inclusive, and their teachers. Selected classroom teachers recorded all problems which arose in the life of the children and which seemed to have arisen spontaneously out of natural situations. These problems were not problems which had been given in a textbook, a course of study, a drill card, or a teacher's plan book. The teachers recorded 2,484 problems.

PRESENTATION OF DATA

The percentage distribution among the various arithmetical processes used in the solution of problems is shown in Table 1, arranged in the order of the frequency of usage. Almost 18 per cent of the 2,484 problems solved by all the children participating in this study involved the use of counting. More than 11 per cent of the problems were solved by the use of subtraction; 10 per cent, by division; about 9 per cent, by multiplication; and 8 per cent, by addition.

The percentage distribution among the processes used by various grades indicates that denominate numbers as a topic were used about as much by Grades III and IV as by Grades V and VI. Division was given most emphasis in Grades V and VI, but the percentage for these grades was only 4 more than the percentage for Grades III and IV. Only 2 per cent of arithmetic used in Grades I and II was related to this topic. Multiplication was also given em-

phasis in Grades V and VI, 11.4 per cent of the problems being solved by this process, compared with 9.5 per cent in Grades III and IV and 3.0 per cent in the lowest grades. Mensuration received approximately equal emphasis in all grade groups. Addition seems to have been given most emphasis in Grades III and IV. Percentage and average were not used generally by pupils until Grades V and VI were reached.

TABLE 1

PERCENTAGE DISTRIBUTION, ACCORDING TO PROCESS USED FOR
SOLUTION, OF 2,484 ARITHMETICAL PROBLEMS ENCOUN-
TERED BY ELEMENTARY-SCHOOL CHILDREN

Process	All Grades	Kindergarten and Grades I and II	Grades III and IV	Grades V and VI
Counting.....	17.7	52.9	9.0	5.1
Common fractions.....	13.1	4.3	11.2	18.5
Subtraction.....	11.5	6.4	18.9	11.5
Denominate numbers.....	10.5	4.4	11.6	12.6
Division.....	10.0	1.9	9.9	14.1
Multiplication.....	8.9	3.0	9.5	11.4
Mensuration.....	8.4	8.6	8.8	7.7
Addition.....	7.6	8.0	11.3	5.6
Decimal fractions.....	7.3	0.2	7.3	9.6
Reading and writing numbers...	3.4	9.9	1.4	1.2
Miscellaneous.....	0.9	0.4	0.6	1.1
Percentage and average.....	0.7	0.0	0.5	1.6
Total.....	100.0	100.0	100.0	100.0

ANALYSIS OF THE FOUR FUNDAMENTAL PROCESSES

Table 2 indicates that, of the problems requiring the use of the fundamental processes, 33 per cent required division; 24 per cent, multiplication; 24 per cent, subtraction; and 19 per cent, addition. In Hanna's study¹ the figures were 15 per cent for division, 38 per cent for multiplication, 23 per cent for subtraction, and 24 per cent for addition. In the present study addition comprises the smallest proportion of the computations, while division is the greatest. Subtraction and multiplication are about equal in frequency of occurrence.

¹ Paul R. Hanna (chairman), "Opportunities for the Use of Arithmetic in an Activity Program," *The Teaching of Arithmetic*, p. 104. Tenth Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1935.

In kindergarten and Grades I and II, 45 per cent of the problems were in addition, as compared with 22 per cent in Grades III and IV and 13 per cent in Grades V and VI. This finding of the greatest use of addition in the lower grades agrees with the findings of Robinson's study,² in which 45 per cent of the computations in Grade I and 14 per cent of those in Grade VI were addition. It is possible that problems involving addition and subtraction are solved so automatically by pupils in the upper grades that no overt evidence is

TABLE 2
PERCENTAGE DISTRIBUTION, ACCORDING TO PROCESS, OF
PROBLEMS INVOLVING FOUR FUNDAMENTAL PROCESSES*

Process	All Grades	Kindergarten and Grades I and II	Grades III and IV	Grades V and VI
Addition.....	18.8	45	22	13
Subtraction.....	24.2	30	30	20
Multiplication.....	23.7	14	18	28
Division.....	33.3	11	30	38
Total.....	100.0	100	100	99

* The numbers of problems represented in Tables 1 and 2 are not entirely comparable. For instance, in Table 1 the four fundamental processes when used in denominate-number problems were listed under "Denominate numbers" only. In Table 2, however, the four fundamental processes were analyzed minutely.

given that a problem has arisen; thus no record could be made by the observer.

Data of this study would indicate that, in the upper grades, division is used more than is multiplication. This finding does not agree with either Hanna's or Robinson's study. Robinson gives 33 per cent for division in Grades V and VI and 28 per cent for multiplication. Hanna lists 41 per cent for multiplication in Grade VI and 15 per cent for division.

CONCLUSIONS AND IMPLICATIONS

Concerning the occurrence of the eleven general arithmetical processes tabulated, the findings may be summarized as follows: Count-

² Clark Norval Robinson, "Elementary School Children's Arithmetic Needs Arising in the Home Environment." Unpublished Master's thesis, Stanford University, 1938.

ing and reading and writing of numbers are used most in the earliest grades. Addition and subtraction are used most by Grades III and IV. Decimals are used with some frequency by Grades III and IV, the frequency increasing in Grades V and VI. Common fractions, division, and multiplication are used most by Grades V and VI, and mensuration is used throughout all the grades with almost equal emphasis.

Although certain arithmetical processes are used most frequently, almost all processes are used in all the grades. This finding would support the theory that processes should be spread throughout the elementary-school grades; that is, it is possible for pupils, even those in Grades I and II, to acquire some understanding of fractions, denominate numbers, and mensuration.

When the four fundamental processes are considered, the following results are found for all grades: (1) Approximately a fifth of the computations are addition; (2) approximately a fourth are subtraction; (3) 24 per cent are multiplication; and (4) a third are division. A further examination of the same data to find out the relation between grade level and the use made of the four processes reveals that 45 per cent of the computations in Grades I and II are addition and that there is a general trend toward decreasing use of this process from the lower to the upper grades. Subtraction is used in Grades I and II as much as in Grades III and IV, but the use of this process declines in Grades V and VI. Multiplication, although used with a frequency increasing from the lower to the upper grades, is used most in Grades V and VI. Division is little used in Grades I and II and increases to nearly two-fifths in Grades V and VI. The data indicate that division is used more in the upper grades than is multiplication.

SUGGESTIONS FOR AN ELEMENTARY-SCHOOL COURSE IN MUSIC

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INTRODUCTION

MUSIC, emotionalized speech, has undoubtedly been the most spontaneous form of human expression throughout the ages. Rising from primitive men's unrestrained vocal utterances and from physical manifestations which reflected the whole gamut of emotions experienced from their contact with the living world, music has adequately portrayed the feelings; the characteristics; and the geographical, political, and social influences of human beings throughout history. Surely this fact in itself is enough to warrant the study of educational music in the public schools.

Most states have already published very commendable courses of study in music for public schools. While these are made accessible to all teachers, too often the latter are not well enough prepared in music to use them. The difficulty may be that colleges working with potential teachers lay too much emphasis on performance and the building of performing organizations and thus fail to produce teachers who are schooled to understand music as an intellectual study which must utilize all the resources of history, geography, literature, sociology, and kindred studies. Thinkers have long seen the danger that stress on rote performance might result in a type of "animal training" in the public schools. They know that probably not more than 5 per cent of the members of performing organizations continue in similar groups after leaving school and that listening, whether intelligent or not, will be the chief musical outlet for the majority of persons. In fact, intelligent performance can come only as the result of a background of understanding, or at least with a concurrently growing and enriching understanding.

AN EIGHT-GRADE COURSE IN MUSIC

Let us start with a first-grade pupil and follow his possible musical growth through the first eight years of his school life. Unless he learns to use his voice for musical expression, his interest will naturally be doubtful. His not unusual inability to secure singing pitches may be no fault of his makeup but rather the result of his teacher's failure to suggest and demonstrate imitations of sounds within his realm of comprehension and experience. For instance, a kitten's mew or a little pup's whine often enables the child to experience the making of a high and light tone and thence to work downward like a siren. The problem is usually a physical one, and the child must be assisted in discovering that his voice can go up and down. Because of his inexperience, both in physical voice control and in the recognition of pitches, he will probably need a familiar tune-pattern for his first attempts at song. The teacher may suggest, for a start, the use of his natural singsong playtime intervals (descending minor third) put to words such as "hello," then simple acted-out phrases going up and down the tones of the tonic chord. A word used to octave skips will help him hear the scale boundaries, while conjunctly used tones, up and down the scale, sung to appropriate words will provide a guide to help him hear and control the tones of the many rote songs to follow. If he gains the use of his singing voice, acquires a feeling for rhythm by responding to basic rhythm movements, and recognizes happiness and sadness in music, as well as fast, slow, and moderate tempos, he will have acquired a working basis for the transition to reading music.

The wise teacher will probably begin the process of reading through the use of lines showing the time lengths and the approximate pitch levels of the respective tones of a known rote song. The teacher will suggest notes of representative values for the lines, use the staff as a ladder guide, and mark off measures. In this procedure the child sees a picture of his song. Observation-type songs are used next, and, when the pupil is in Grade III, he will be taught to use syllables or some other device for finding pitches. The syllable "crutch" will be wisely used to acquire a "hearing eye" for intervals and thus to prepare the way for reading instrumental music.

Music should be included as one of the social studies. "Any proce-

ture which fails to develop continuity of thought, which fails to show pupils how to go or where to go, and which fails to give a vision, should be corrected."¹ While no definite programs of history and geography are started until the child reaches Grade IV, he will have already become acquainted with folk games and folk dances, the music of the Indian, the pioneer, and the Negro and will have made a beginning in reading music.

To most of us, seventeenth-century music is firmly set within the boundaries of Europe. However, the fourth-grade pupil learns that it came to America with the explorers and the colonists. He sees classical music in its authentic garb of universality and impersonality, influenced by the tyranny and airs and graces of the European court, taking on the repetitions of the baroque and the embellishments of the rococo periods. He can picture the powdered wigs and the lace of Washington's time, can see the early settlers dance the minuet and the gavotte and, upon rather hilarious occasions, the jig. Indeed the pupil learns to sing the music and to dance these dances himself. He hears the harpsichord; learns about the new *fortepiano*; feels the severe plainness of the Puritan hymn; and reads of the violinist, Thomas Jefferson, who was so passionately fond of good music that he deplored the lack of it in America. The fourth-grade pupil goes to France with Benjamin Franklin, visits composer Marie Antoinette, and takes sides in the Gluck-Piccinni controversy, as did Franklin. Mozart becomes a boyhood friend. Did he not write symphonies at the age of nine? What music is better adapted to childhood than that of classic simplicity? The child learns that Francis Hopkinson, signer of the Declaration of Independence and designer of our flag, was an American composer contemporary with Mozart, Handel, Bach, Gluck, and "Papa" Haydn. The pupil knows, too, what instruments were used and how they sounded, for they are still used in our orchestras and bands.

While in Grade V the pupil moves westward to the Mohawk Valley and also sings with the Negro slave who brought the banjo and the tango, habanera, and rumba rhythms to the white man. He lives in bondage with the Negro to see how the spirituals came into being,

¹ *A Course of Study for Rural and Graded Elementary Schools of South Dakota*, p. 541. Pierre, South Dakota: State Superintendent of Public Instruction, 1934 (1933 revised).

makes friends with Stephen Foster, and studies the Creole. He follows the Oregon Trail, lives with the "hillbilly," and sees how the jigs and the reels of the British Isles were transplanted into Tennessee and Arkansas. He rides the ranges with the singing cowboy, goes to Spanish California, and welcomes the immigrants to America. A careful study of the characteristics of the folk songs of these newcomers from foreign lands helps him to learn more about them as people. He learns that the ancient migrations of their ancestors had much to do with the characteristics of their music and that geographical and social conditions also influenced it. He knows that the bagpipe and the five-tone scale of the Celt came from Asia and that the American Indian probably brought his scale with him from there also. In the Moorish songs of Spain and some of those of France and even of the British Isles, he can hear how oriental culture gradually crept into parts of Western Europe. The solidity of songs from Central Europe becomes clearly understandable, and the yodel of mountain people seems only natural. Most music of the peoples of the far north he finds to be sad and minor. Gradually he becomes more adept in recognizing the geographical location represented by the music he hears and in determining the characteristics of the people.

In Grades VI and VII musical progress is studied from the time of primitive man, through the cultural civilizations of Egypt, Greece, and Rome, to the periods of the Crusades and the Renaissance of Western Europe. This prepares the way for an intelligent study of the great composers: how the nationalistic folk music and the sociological and political conditions of the times influenced each; what each, in turn, contributed to the art; and what determined the characteristics of the classical, the romantic, and the modern periods of composition. While singing three-part works and perhaps playing in an instrumental organization, the pupil can make a study of the school of contrapuntal writing—since examples are heard every day—and can learn how opera necessitated the use of harmonic writing and what scale structure, chord structure, and musical form are. This introduction gives rise to a more thorough study of instrumental voices, performing organizations, and larger-form composition. As the historical survey moves onward, it is pertinent to observe that the American Revolution, together with that of the

French, was a big determining factor in the transition from the classical school, controlled by the court, to the romantic. This was the first time in history that the common man was considered in art, through the medium of emotionalism. This new-found "program music," influenced by Beethoven, provided human appeal in keeping with man's new freedom. For the first time, a musical composition could represent something—a mood, an event, a picture, or an element of nature.

In Grade VIII after the accumulated historical study has been summarized, "impressionistic modernism" (prompted by social unrest, speed in living, and political isms) can be taken up. The pupil interprets these musical impressions of livid splashes of tonal color, displayed in lines of brazen rhythmic figures, in much the same way as he does modern poetry or art. Personal likes and dislikes should, by now, be swayed by at least some knowledge of the subject. It is to be expected that the pupil may prefer "swing" music and dance bands, since he is characteristically adolescent, although he knows that the rhythms are biologically primitive in origin, born of the African jungle. He will, however, recognize large-form works of the classical period as masterpieces of fine construction and will realize why exactness was a criterion of the eighteenth century. He will know that the whole panorama of human history unfolds in vivid tonal pictures for those who possess "hearing" ears: he will see the ageless complacency of the Oriental in a work by Borodin, sail the eastern seas with naval officer Rimski-Korsakov, begin to feel the power of a Beethoven symphony, gradually mature to the pathos of humankind in Tchaikovsky's *Pathétique*, and some day be restored in soul by the strength of Bach. He will find all the idioms of tonal language understandable; recognize the messages of moving-picture background music; be conscious of his choice between the shoddy and the fine; and, last, be able to adjust himself intelligently to the mental assimilation of radio and concert offerings. He will have acquired a musical foundation for listening growth and a background for intelligent performance.

MUSIC IN RURAL SCHOOLS

How can satisfactory musical growth be provided for rural-school pupils? In many rural schools the schedule is already so crowded

that songs can be used for opening exercises on only one or two days a week. Songs must also be taught, or spoon-fed, to the pupils who perform in county festivals. The whole problem can be worked out only by considering music in terms of its values for living. If the decision be passionately in favor of better advantages in music, there still arises the question of equipment. Musically educated teachers who are proficient and sincere and who have the aid of a piano, juvenile books in music history and appreciation, good songbooks, plus the intelligent use of the phonograph and of family radios, will leave little to be desired. Successful teaching will undoubtedly be more probable if counties employ competent visiting supervisors for music.

CONCLUSION

Good teachers who are musically educated cannot be produced by colleges that provide only one or two terms of music courses, unless now and then a student be so fortunate as to have acquired an advanced start. We must also face squarely the fact that many potential teachers do not possess the necessary background. This lack reflects, to a decided extent, the fact that their own elementary-school education was deplorably barren of musical enlightenment and points again to the unpreparedness of their own teachers. This condition can go on for countless teacher-pupil generations if the life-values to be obtained through music are to be denied the pupils in so many school districts.

POETRY PRESENTATION OF SECOND- AND THIRD-GRADE READERS

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AMOUNT OF POETRY

TWENTY-TWO books, the second and third readers of eleven popular series named at the end of this article, were examined to determine the amount of poetry presented, the range of subjects, and the identity of the poets.

It is surprising to find from Table 1 that comparatively more poetry appears in readers for children of second-grade level than in those of third-grade level, since poetry is generally conceded to be more difficult for children to read than is prose of the same vocabulary level.

That the poetry content of second-grade readers is decreasing was the conclusion of Gunderson,¹ who studied the amount of poetry in eleven second readers published in the period 1916-35. Comparing the poetry usage in four successive five-year periods, Miss Gunderson found the proportions of the total content given to poetry were as follows: 1916-20, 14.3 per cent; 1921-25, 12.6 per cent; 1926-30, 9.5 per cent; and 1931-35, 5.7 per cent. That this decrease is still the trend is indicated in the present finding of a poetry content in eleven second readers of 4.2 per cent of the total content of the selected books published between 1930 and 1940. However, Miss Gunderson used but four of the eleven books which were studied here.

SUBJECTS OF POEMS INCLUDED

The data presented in Table 2 indicate that almost all the poems for Grades II and III fall under the subject headings "Nature," "Activities," "Fancy and Fantasy," "Holidays," "Workers,"

¹ Agnes G. Gunderson, "Types of Reading Matter Contained in Readers Published over a Period of Twenty Years," *Educational Method*, XVII (February, 1938), 226-30.

TABLE 1
PERCENTAGE OF PAGES GIVEN TO POETRY IN SECOND
AND THIRD READERS OF ELEVEN SERIES

SERIES	PERCENTAGE OF PAGES GIVEN TO POETRY	
	Second Readers	Third Readers
1. Curriculum Readers.....	3.2	4.1
2. Happy Road to Reading...	6.4	5.5
3. Elson Basic Readers.....	2.6	3.5
4. Happy Hour Readers.....	6.0	4.2
5. New Work-Play Books.....		
6. Childhood Readers.....	6.6	4.8
7. Good Companions.....	12.0	9.4
8. Friendly Hour.....	4.1	3.9
9. Alice and Jerry Books.....		
10. Children's Own Readers...	2.7	2.5
11. Unit-Activity Reading Series.....	3.0	2.9
Average.....	4.2	3.6

TABLE 2
DISTRIBUTION, ACCORDING TO SUBJECTS TREATED, OF POEMS APPEARING IN
SECOND AND THIRD READERS OF ELEVEN SERIES

SUBJECT	SECOND READERS		THIRD READERS	
	Number	Per Cent	Number	Per Cent
Nature:				
Animal life.....	11	12.0	16	15.4
Birds.....			4	3.8
Plant life.....	11	12.0	8	7.7
Other nature poems.....	22	23.9	15	14.4
Activities.....	10	10.9	13	12.5
Fancy and fantasy.....	8	8.7	11	10.6
Holidays.....	8	8.7	7	6.7
Workers.....	7	7.6	6	5.8
Travel.....	4	4.3	6	5.8
Eskimo and Indian.....	4	4.3	4	3.8
Foreign.....			8	7.7
Miscellaneous.....	7	7.6	6	5.8
Total.....	92	100.0	104	100.0

"Travel," and "Eskimo and Indian." In addition, the third-grade readers contain several poems about foreign lands. The nature poems far outnumber those of any other group, comprising 48 per cent of the poems in the second readers and 41 per cent of those in the third readers. Of these nature poems, the third readers offer more selections about animals and birds than the second readers and fewer about plant life. The numbers of poems in the other groups are similar.

THE POETS

Many poets have written these poems for children. It was interesting to scan the list and to note names of poets, such as Sara Teasdale and Robert Frost, whom we regard as poets for adults, and such famous prose writers as Elizabeth Madox Roberts, Christopher Morley, Margaret Widdemer, and Henry Cuyler Bunner. Of eighty-seven poets whose works appear in these books, sixty-two have poems in second readers and forty-six in third readers. Evidently the poems of many of them have been placed at both levels. The literary taste of the young lady who said that "Anonymous" was her favorite writer would be borne out in these readers, for "Author Unknown" stands fourth on the list arranged as to frequency of occurrence of each author's poems. The names of the poets appearing two or more times are shown in Table 3.

With the exception of Robert Louis Stevenson, who seems to be the children's poet of the school readers, the more modern poets are most popular. The review on page 538 of the subjects on which several of them write shows that eight poems are about travel, seven about workers, and seven about holidays, and the remainder of the thirty-nine poems are concerned with plants and animals, foreign children, life in the city and on the farm, and fairies and fantasy. Each poet has his special interest. Many of Rose Fyleman's poems are fanciful concepts of fairies and nature; most of Tippet's are about travel, most of Nancy Byrd Turner's about workers and holidays; and Annette Wynne writes of holidays, Eskimo and Indian children, and travel. The concepts of the poems are within the understanding of children and are put charmingly into verse.

So familiar are many of the poems included in these books that we have the impression that they are frequently duplicated in different

readers, but this is not the case. Among the 92 poems appearing in eleven second readers, only seven are found in another reader of the

TABLE 3
POETS WHOSE WORKS APPEAR TWO OR MORE TIMES IN
SECOND AND THIRD READERS OF ELEVEN SERIES

POET	NUMBER OF POEMS		
	Second Readers	Third Readers	Total
Robert Louis Stevenson.....	9	7	16
Rose Fyleman.....	7	7	14
Annette Wynne.....	3	11	14
Author unknown.....	9	3	12
Nancy Byrd Turner.....	7	3	10
James S. Tippet.....	6	3	9
Rhymes:			
Chinese Mother Goose.....		3	3
Old English Country Rhyme.....		1	1
Old Rhyme.....	1	1	2
Dorothy Aldis.....	2	2	4
Eleanor Farjeon.....	2	2	3
Christopher Morley.....	2	2	4
Marjorie Barrows.....	1	2	3
Hilda Conkling.....		3	3
Walter de la Mare.....	1	2	3
Florence Fennessey.....		3	3
Rachel Field.....	1	2	3
Vachel Lindsay.....	2	1	3
Olive Beaupré Miller.....		3	3
Elizabeth Madox Roberts.....	1	2	3
Christina Rossetti.....	3		3
William Blake.....		2	2
Fannie R. or Jean Buchanan*.....	2		2
Thornton Burgess.....	2		2
Eliza Lee Follen.....	1	1	2
Rebecca B. Foresman.....	1	1	2
Eleanor Hammond.....	1	1	2
Helen Cowles Lecron.....		2	2
Henry W. Longfellow.....	1	1	2
John Martin.....	1	1	2
Josephine Van Dolzen Pease.....	1	1	2
Wilhelmina Seegmiller.....	1	1	2
Marion St. John Webb.....	1	1	2

* This author uses both "Fannie R." and "Jean."

same grade level. Among the 104 poems of the eleven third readers, only nine poems are repeated in another third reader. In only four cases was a poem placed in both second and third readers. Perhaps

our sense of familiarity with the poems is based on the strong impression that they make, for many of them are too modern to have been known very long and they are not encountered often.

TITLES OF POEMS OF FOUR MODERN POPULAR
CHILDREN'S POETS

Rose Fyleman:

My Policeman
The Postman
Have You Watched the Fairies?
The Best Game the Fairies Play
The Apple Tree
The Flowers
The Spring
The Moon
Buildings
In Holland

Nancy Byrd Turner:

A Country Mail Carrier
The City Workers
The Garage Man
Automobiles
The Cowboy
Columbus
Black and Gold
Here Is Our Flag
Danny

James S. Tippett:

Baggage
Trains
Railroad Stations
Taxicabs
Traveling
Animal Friends
In the City
The Farm
Which?

Annette Wynne:

The Traffic Man
Trains in the Desert
Telegrams
Halloween
Christopher Columbus
Song for Columbus Day
Flag, Our Flag
The Foreign Children
Never Know
Little Eskimo
Indian Children
A Secret

CONCLUSIONS

1. Many poems are presented to children in second and third readers. In the 22 books analyzed, 196 poems appear. These occupy a total of 241 pages, or 3.9 per cent of the total number of pages of reading material in the books.

2. The poetry content of the second readers is relatively higher than that of the third readers. In the second readers 4.2 per cent of the pages are devoted to poetry, and in the books for third grade the percentage is 3.6. The amount of poetry ranges from a poetry con-

tent of 12 per cent to no poetry at all in second readers, and from a poetry content of 9.4 per cent to no poetry at all in third readers. In most cases the second and the third readers of a series follow the same general policy with respect to the amount of poetry presented.

3. The subject matter of the poems for both grades is drawn from the fields of "Nature," "Activities," "Fancy and Fantasy," "Holidays," "Workers," "Travel," "Eskimo and Indian." In addition, the third readers contain several poems about foreign lands.

4. Many poets have written for children. The 196 poems were written by 87 poets, of whom 62 contributed poems used in second readers, and 46 wrote poems used in third readers.

READERS ANALYZED

1. BAKER, CLARA BELLE; REED, MARY MAUD; and BAKER, EDNA DEAN. *The Curriculum Readers: Friends Here and Away and Friends around the World*. Indianapolis, Indiana: Bobbs-Merrill Co., 1934.
2. DOPP, KATHARINE E., PITTS, MAY, and GARRISON, S. C. *Happy Road to Reading: Outdoors and In and Now and Long Ago*. Chicago: Rand McNally & Co., 1935.
3. ELSON, WILLIAM H., and GRAY, WILLIAM S. *The Elson Basic Readers, Books II and III*. Chicago: Scott, Foresman & Co., 1931.
4. ENGLISH, MILDRED, and ALEXANDER, THOMAS. *Happy Hour Readers: Wheels and Wings and Wide Windows*. Richmond, Virginia: Johnson Publishing Co., 1935.
5. GATES, ARTHUR I., HUBER, MIRIAM BLANTON, and PEARDON, CELESTE COMEGYS. *The New Work-Play Books: We Grow Up and Wide Wings*. New York: Macmillan Co., 1939.
6. GRADY, WILLIAM E., KLAPPER, PAUL, and GIFFORD, J. C. *Childhood Readers: Stories for Every Day and Children Near and Far*. New York: Charles Scribner's Sons, 1932.
7. HARDY, ROSE LEES, and HECOX, GENEVA J. *Good Companions: Comrades and Neighbors*. New York: Newson & Co., 1931.
8. LEAVELL, ULLIN W., BRECKINRIDGE, ELIZABETH G., BROWNING, MARY, and FOLLIS, HATTIE. *The Friendly Hour: Indoors and Out and Friends To Know*. New York: American Book Co., 1936.
9. O'DONNELL, MABEL, and CAREY, ALICE. *The Alice and Jerry Books, Reading Foundation Series: Friendly Village and If I Were Going*. Evanston, Illinois: Row, Peterson & Co., 1936.
10. PENNELL, MARY E., and CUSACK, ALICE M. *The Children's Own Readers, Books II and III*. Boston: Ginn & Co., 1929.
11. SMITH, NILA BANTON. *The Unit-Activity Reading Series: Round about You and Near and Far*. New York: Silver Burdett Co., 1935.

SELECTED REFERENCES ON PRESCHOOL AND PARENTAL EDUCATION

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THIS bibliography, except in the case of a few items, covers the period from December 1, 1940, to December 1, 1941. The plan of selection is the same as that used in previous years, the following classes of books and articles being omitted: (1) foreign-language publications, (2) textbooks and reviews, and (3) popular articles containing little new material.

TECHNICAL AND EXPERIMENTAL STUDIES¹

94. AMEN, ELISABETH W. *Individual Differences in Apperceptive Reaction*. Genetic Psychology Monographs, Vol. XXIII, Second Half. Provincetown, Massachusetts: Journal Press, 1941. Pp. 319-85.

A first report, devoted chiefly to normative and quantitative findings from a study of preschool children's verbal responses to a series of pictures. Eventually it is hoped that the procedure may be found useful as a "projective" method for the study of personality in the young child.

95. AMES, LOUISE BATES. "The Constancy of Psycho-motor Tempo in Individual Infants," *Pedagogical Seminary and Journal of Genetic Psychology*, LVII (December, 1940), 445-50.

Eight infants whose motor development was studied by means of cinema records showed some tendency to maintain the same relative position in the group over a period of several months.

96. BARKER, ROGER; DEMBO, TAMARA; and LEWIN, KURT. *Frustration and Regression*. Studies in Topological and Vector Psychology II. University of Iowa Studies, Studies in Child Welfare, Vol. XVIII, No. 1. Iowa City, Iowa: University of Iowa, 1941. Pp. xvi+314.

A detailed account of the effects of experimentally induced frustration on the subsequent behavior of young children. The data are subjected to topological analysis.

¹ See also Item 396 (Long) in the list of selected references appearing in the May, 1941, number of the *School Review*.

97. BARUCH, DOROTHY W. "Aggression during Doll Play in a Preschool," *American Journal of Orthopsychiatry*, XI (April, 1941), 252-59.
Describes the types of aggressive behavior displayed by forty-six nursery-school children toward dolls representing members of their own families. Includes a number of illustrative case reports.
98. BURTON, ARTHUR. "The Influence of Social Factors upon the Persistence of Satiation in Preschool Children," *Child Development*, XII (June, 1941), 121-29.
Children who had become satiated with ("tired" of) a task showed renewed interest in it when a companion was introduced.
99. BURTON, ARTHUR, and TUELLER, ROMA. "Successive Reproductions of Visually Perceived Forms," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (March, 1941), 71-82.
Nursery-school children were shown a picture of a circle containing three dots arranged to look like a moonface and were then encouraged to draw similar figures until satiation was reached. All children tended to reorganize the figure in some more or less systematic fashion in successive reproductions. The theoretical significance of this tendency is discussed.
100. BURTT, HAROLD E. "An Experimental Study of Early Childhood Memory: Final Report," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 435-39.
Some retention, shown by number of trials required for relearning, of meaningless material read daily to a child between the ages of fifteen and thirty-six months was still present at the age of eight and a half years. At the age of fourteen the retention was markedly reduced, and at eighteen years no retention could be demonstrated.
101. CAMPBELL, R. V. D., and WEECH, A. A. "Measures Which Characterize the Individual during the Development of Behavior in Early Life," *Child Development*, XII (September, 1941), 217-36.
A mathematical formula is developed whereby individuation is expressed in terms of the ratio between variation within the same individual from time to time and variation among the members of a group. Individuation is slight at birth but increases with age.
102. CHAMPNEY, HORACE. "The Measurement of Parent Behavior," *Child Development*, XII (June, 1941), 131-66.
Presents a battery of thirty scales for the use of the home visitor in appraising parent behavior.
103. CHAMPNEY, HORACE. "The Variables of Parent Behavior," *Journal of Abnormal and Social Psychology*, XXXVI (October, 1941), 525-42.
Discusses hypotheses underlying the measurement of parent-child relationships, together with a list of twelve criteria to be employed for judging the adequacy of scales designed to measure parental behavior and attitudes.

104. CRUIKSHANK, RUTH M. "The Development of Visual Size Constancy in Early Infancy," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 327-51.
Presents some evidence that visual size constancy is fairly well developed by the age of six months.
105. DALES, RUTH J. "Afternoon Sleep in a Group of Nursery-School Children," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (March, 1941), 161-80.
Afternoon naps of seventy-three nursery-school children were studied with reference to variation with age, time required to fall asleep, seasonal differences, and differences associated with day of the week.
106. DAMMANN, VERA T. "Developmental Changes in Attitude as One Factor Determining Energy Output in a Motor Performance," *Child Development*, XII (September, 1941), 241-46.
A three-year study, in regard to qualitative and quantitative changes in the ability of an infant to creep up a series of inclined slides to secure a lure, led to the conclusion that the changing interests and attitudes of the child were of at least as great significance in determining his performance as the developmental changes in motor skill.
107. DE FOREST, RUTH. "A Study of the Prognostic Value of the Merrill-Palmer Scale of Mental Tests and the Minnesota Preschool Scale," *Pedagogical Seminary and Journal of Genetic Psychology*, LIX (September, 1941), 219-23.
The correlation between the intelligence quotients obtained through the Merrill-Palmer test and the intelligence quotients obtained later on the Binet test was .55; between the Minnesota total intelligence quotient and the Binet intelligence quotient, .56.
108. DENNIS, WAYNE. *Infant Development under Conditions of Restricted Practice and of Minimum Social Stimulation*. Genetic Psychology Monographs, Vol. XXIII, First Half. Provincetown, Massachusetts: Journal Press, 1941. Pp. 143-89.
As a result of the study of two infants reared under conditions of minimal social stimulation, it is concluded that much of the improvement in skills and the developmental change in behavior generally ascribed to "maturation" might better be imputed to autogenous practice of these skills. The importance of maturation lies chiefly in its making self-directed practice possible for the child.
109. GESELL, ARNOLD. *Wolf Child and Human Child: Being a Narrative Interpretation of the Life History of Kamala, the Wolf Girl*. New York: Harper & Bros., 1941. Pp. vi+108.
An imaginative picture of the early life of a child supposed to have been reared by wolves.

110. GESELL, ARNOLD, and THOMPSON, HELEN. *Twins T and C from Infancy to Adolescence: A Biogenetic Study of Individual Difference by the Method of Co-twin Control*. Genetic Psychology Monographs, Vol. XXIV, First Half. Provincetown, Massachusetts: Journal Press, 1941. Pp. 3-79.
A comparative account of the later development of a pair of identical twins, one of whom was given special training in various skills during infancy and early childhood, while the other was not. In general the reported differences are small.
111. HALLOWELL, DOROTHY KERN. "Validity of Mental Tests for Young Children," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 265-88.
Presents correlations between developmental quotients obtained before the age of four years and Stanford-Binet intelligence quotients obtained after school entrance. Possible reasons for changes in test standing are discussed and illustrated by a series of case studies.
112. IRWIN, ORVIS C. "The Profile as a Visual Device for Indicating Central Tendencies in Speech Data," *Child Development*, XII (June, 1941), III-20.
Describes a means of graphic representation of the phonetic makeup of the speech sounds made by children at any age.
113. IRWIN, ORVIS C., and CURRY, THAYER. "Vowel Elements in the Crying Vocalization of Infants under Ten Days of Age," *Child Development*, XII (June, 1941), 99-109.
Transcription of the vowel sounds in the crying of newborn infants in terms of the symbols of the International Phonetic Alphabet showed high agreement among independent observers. Four vowels account for more than 90 per cent of all sounds uttered.
114. JOHNSON, BETH, and BECK, L. F. "The Development of Space Perception: I. Stereoscopic Vision in Preschool Children," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 247-54.
By the use of a stereoly-polaroid system of projection and polarized spectacles, the presence of stereoscopic vision in children as young as two years was demonstrated.
115. KATZ, EVELYN. "The Constancy of the Stanford-Binet IQ from Three to Five Years," *Journal of Psychology*, XII (October, 1941), 159-81.
Test-retest correlations ranged from .533 to .765, with approximately 40 per cent of the group showing fluctuations of 20 or more intelligence-quotient points.
116. KELLOGG, W. N. "A Method for Recording the Activity of the Human Fetus *in utero*, with Specimen Results," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 307-26.

Describes a simple mechanical apparatus for recording fetal movements and presents results from the consecutive daily study of one fetus from the 170th to the 256th day of fetal life.

117. KNOTT, VIRGINIA BERGSTRESSER. *Physical Measurement of Young Children*. University of Iowa Studies, Studies in Child Welfare, Vol. XVIII, No. 3. Iowa City, Iowa: University of Iowa, 1941. Pp. 100.

Presents the comparative reliability of thirty-five measurements of various dimensions of the body during the preschool period, together with analysis of some of the factors contributing to errors of measurement and notes on the frequency with which each measurement may profitably be taken.

118. KOSHUK, RUTH PEARSON. *Social Influences Affecting the Behavior of Young Children*. Monographs of the Society for Research in Child Development, Vol. VI, No. 2 (Serial No. 28). Washington: Society for Research in Child Development, National Research Council, 1941. Pp. iv+72.

A review of the literature on theories and findings with respect to the effect that varying home and family conditions have on the behavior of preschool children. An extensive bibliography is appended.

119. LANDRETH, CATHERINE. "Factors Associated with Crying in Young Children in the Nursery School and the Home," *Child Development*, XII (June, 1941), 81-97.

In the nursery school the most frequent cause of crying was conflict with other children. In the home, crying most frequently arose over the carrying-out of routine health requirements and conflicts with parents.

120. LEUBA, CLARENCE. "Tickling and Laughter: Two Genetic Studies," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (March, 1941), 201-9.

In the two infants studied, laughter and squirming as a response to tickling first appeared between the sixth and the seventh months. Before the end of the first year, a conditioned response to the sight of the fingers in a position threatening to tickle had been established.

121. MCCAY, JEANETTE B., and FOWLER, MARIE B. "Some Sex Differences Observed in a Group of Nursery School Children," *Child Development*, XII (June, 1941), 75-79.

In a group of nursery-school children the boys excelled the girls with respect to intake of food; earlier rising hour, with consequent reduction in amount of sleep; and frequency of restless movements during the day.

122. MCGRAW, MYRTLE B. "Neural Maturation as Exemplified in the Reaching-prehensile Behavior of the Human Infant," *Journal of Psychology*, XI (January, 1941), 127-41.

Describes successive stages in the development of reaching and grasping and presents a series of graphs showing the range of ages during which each stage persisted.

123. MCGRAW, MYRTLE B. "Development of Neuro-muscular Mechanisms as Reflected in the Crawling and Creeping Behavior of the Human Infant," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (March, 1941), 83-111.
Describes nine significant phases in the development of creeping.
124. MCGRAW, MYRTLE B. "Development of Rotary-vestibular Reactions of the Human Infant," *Child Development*, XII (March, 1941), 17-19.
Notes three phases of the response to rapid rotation of the child's body and presents curves showing the percentage of cases manifesting each type of response at each age during the first two years of life.
125. MCGRAW, MYRTLE B. "Neural Maturation as Exemplified in the Changing Reactions of the Infant to Pinprick," *Child Development*, XII (March, 1941), 31-42.
Describes the successive stages in reaction to pinprick from birth to the age of four years. The data are based on more than two thousand observations.
126. MCGRAW, MYRTLE B. "Neuro-motor Maturation of Anti-gravity Functions as Reflected in the Development of a Sitting Posture," *Pedagogical Seminary and Journal of Genetic Psychology*, LIX (September, 1941), 155-75.
Five significant phases that characterize the rising aspect of the act of sitting and six that characterize its restive aspect are analyzed with respect to the modal age of appearance of each.
127. MCGRAW, MYRTLE B., and BREEZE, KENNETH W. "Quantitative Studies in the Development of Erect Locomotion," *Child Development*, XII (September, 1941), 267-303.
Presents a detailed account of the use of measurements from motion-picture films in the study of various aspects of erect locomotion.
128. MCGRAW, MYRTLE B., and MOLLOY, LOUISE B. "The Pediatric Anamnesis: Inaccuracies in Eliciting Developmental Data," *Child Development*, XII (September, 1941), 255-65.
The accuracy of parents' reports of the age at which various developmental items appeared was improved by the use of specific questions supplemented by drawings illustrating the behavior in question.
129. MARQUIS, DOROTHY POSTLE. "Learning in the Neonate: The Modification of Behavior under Three Feeding Schedules," *Journal of Experimental Psychology*, XXIX (October, 1941), 263-82.
A group of newborn infants fed according to a three-hour schedule during the first eight days of life were changed to a four-hour schedule on the ninth day. Stabilimeter records revealed a marked increase in general activity shortly after the third hour following feeding—a change that was not apparent for a control group accustomed to a four-hour schedule from the beginning.

130. MAURER, KATHARINE M. "Patterns of Behavior of Young Children as Revealed by a Factor Analysis of Trait 'Clusters,'" *Pedagogical Seminary and Journal of Genetic Psychology*, LIX (September, 1941), 177-88.

The author made a multiple-factor analysis of traits checked as descriptive of the behavior of fifty children between the ages of four and six years. Three trait clusters were isolated: (1) conformity, (2) moderate conformity with definite social tendencies, and (3) nonconformity.

131. MEREDITH, HOWARD V., and GOODMAN, JACK L. "A Comparison of Routine Hospital Records of Birth Stature with Measurements of Birth Stature Obtained for Longitudinal Research," *Child Development*, XII (June, 1941), 175-81.

Marked discrepancies between the routine records of birth stature made in "Hospital X" and those obtained for the same children by trained anthropometrists were found to exist. It is concluded that hospital records were not sufficiently precise for careful research.

132. METHENY, ELEANOR. *Breathing Capacity and Grip Strength of Preschool Children*. University of Iowa Studies, Studies in Child Welfare, Vol. XVIII, No. 2. Iowa City, Iowa: University of Iowa, 1940. Pp. vi+208.

Describes methods of measurement and presents data on developmental changes in breathing capacity and strength of grip during the preschool period. Analyzes the relation of these factors to various mental and physical measurements, including health records.

133. METHENY, ELEANOR. "Daily Variations in the Breathing Capacity and Grip Strength of Preschool Children as Related to the Occurrence of Colds," *Child Development*, XII (March, 1941), 69-74.

About two days before the appearance of other symptoms, a criterion, based on changes in dynamometer and spirometer readings, was found to differentiate between those children who did and those who did not develop colds.

134. RAND, WINIFRED; SWEENEY, MARY E.; and VINCENT, E. LEE. *Growth and Development of the Young Child*. Philadelphia: W. B. Saunders Co., 1940 (third edition). Pp. x+462.

A revised edition of a well-known book. Much newly published material is included.

135. READ, KATHERINE H. "Factors Affecting Agreement in Teachers' Behavior Ratings of Nursery School Children," *Journal of Experimental Education*, IX (December, 1940), 133-38.

Points out five factors affecting the extent of agreement among nursery-school teachers in rating children.

136. RICHARDS, T. W. "Factors in the Personality of Nursery School Children," *Journal of Experimental Education*, IX (December, 1940), 152-53.

Reports the results of a factorial analysis of the intercorrelations of the nine Merrill-Palmer Personality Scales reported by Ball and Roberts ("A Study of Personality in Young Children by Means of a Series of Rating Scales," *Pedagogical Seminary and Journal of Genetic Psychology* [March, 1938], 79-149). Three factors, tentatively named "Self-sufficiency," "Conformity," and "Likeableness," were isolated.

137. SCHMEIDLER, GERTRUDE R. "The Relation of Fetal Activity to the Activity of the Mother," *Child Development*, XII (March, 1941), 63-68.

Reports an inverse relation between fetal activity and maternal activity. Fetal activity was greatest immediately after maternal sleep; least, after marked activity on the part of the mother.

138. SHIRLEY, MARY M. "The Impact of the Mother's Personality on the Young Child: Two Parallel Case Studies," *Smith College Studies in Social Work*, XII (September, 1941), 15-64.

A detailed account of the early development and behavior of two boys of similar social background, one of whom was reared by rigid and meticulous observance of the conventional formulas for child care, the other with minimal attention to standardized rules or principles.

139. SHIRLEY, MARY M., and POYNTZ, LILLIAN. "The Influence of Separation from the Mother on Children's Emotional Responses," *Journal of Psychology*, XII (October, 1941), 251-82.

A descriptive account, illustrated by many short case reports, of the reactions of young children to being left at the Harvard Center for Research in Child Health and Development, Harvard School of Public Health, for a series of physical and mental examinations requiring an entire day for completion.

140. SMITH, J. ROY. "The Frequency Growth of the Human Alpha Rhythms during Normal Infancy and Childhood," *Journal of Psychology*, XI (January, 1941), 177-98.

Presents data on the age at first appearance of the alpha rhythms in the occipital and central regions and on the changes in frequency of these rhythms with advancing age, and suggests possible neurological implications.

141. WEECH, A. A., and CAMPBELL, R. V. D. "The Relation between the Development of Behavior and the Pattern of Physical Growth," *Child Development*, XII (September, 1941), 237-40.

A significant correlation between weight at the age of fifty days and certain indices of behavior development was established in a group of thirty-three infants.

142. WILE, IRA S., and DAVIS, ROSE. "The Relation of Birth to Behavior," *American Journal of Orthopsychiatry*, XI (April, 1941), 320-34.

A comparison of the later behavior of children instrumentally delivered with that of children spontaneously delivered gave little support to Rank's theories

of the significance of the "birth trauma" as a factor in personality development. A greater frequency in the instrumental group of children characterized as hyperactive but with little effective energy output is tentatively ascribed to the physical effect of mild birth injury.

143. YOUNG, FLORENCE M. *An Analysis of Certain Variables in a Developmental Study of Language*. Genetic Psychology Monographs, Vol. XXIII, First Half. Provincetown, Massachusetts: Journal Press, 1941. Pp. 3-141.

Compares various aspects of language development in two groups of nursery-school children: one from underprivileged homes in which the families were on relief, the other from homes of the upper socio-economic levels. A bibliography of ninety-two titles is appended.

Nontechnical Books and Articles Primarily for Parents
Teachers, and Workers in the Field
of Parent Education

144. BALL, RACHEL STUTSMAN. "A Rating Scale for Parents," *Parents Magazine*, XVI (June, 1941), 32-33, 86-90.

Presents a scale by means of which parents can rate their own practices in the care and guidance of their children.

145. BUCK, PEARL S. "What Chinese Parents Can Teach Us," *Parents Magazine*, XVI (November, 1941), 18-19, 60, 62, 64.

Security in family relationships and tolerance of individual variations are characteristics of Chinese family life that American parents might well imitate.

146. KANNER, LEO. *In Defense of Mothers: How To Bring Up Children in Spite of the More Zealous Psychologists*. New York: Dodd, Mead & Co., 1941. Pp. 168.

A breezy indictment of many of the current psychiatric and psychoanalytic theories about the significance of children's "behavior problems."

147. KIEFFER, F. J. *The Child and You*. Translated by Gustavus J. Hetterich. Milwaukee, Wisconsin: Bruce Publishing Co., 1941. Pp. x+150.

A book for parents dealing primarily with methods of inculcating, in the growing child, proper attitudes toward authority.

148. REEVES, KATHERINE M. "Who Goes to Nursery School?" *Mental Hygiene*, XXV (July, 1941), 458-61.

A discussion of the special adjustments of both child and parent that must be made when a child is first sent to nursery school, and of the responsibility of the nursery-school teacher for integrating the philosophies and practices of home and school in such a way that the little child will not be torn between two loyalties nor confused by the need of conforming to two divergent sets of rules.

149. WALKER, NATHALIA. "Twenty Mothers Go to School," *Parents Magazine*, XVI (September, 1941), 28-29, 40, 42.

Describes the organization of a co-operative nursery school conducted in a church basement. Most of the equipment was built by the fathers, and the teaching was done by mothers under the direction of a trained supervisor.

150. WOLF, ANNA W. M. *The Parents' Manual—A Guide to the Emotional Development of Young Children*. New York: Simon & Schuster, 1941. Pp. xx+332.

Mrs. Wolf stresses the need for avoiding overanxiety on the part of parents and for adopting a more casual attitude toward the everyday problems of childhood.

151. WOODCOCK, LOUISE P. *Life and Ways of the Two-Year-Old*. New York: E. P. Dutton & Co., Inc., 1941. Pp. 268.

A detailed account, illustrated by many descriptive accounts and photographs, of the developmental progress of children attending the Harriet Johnson Nursery School during the third year of life.

Educational Writings



REVIEWS AND BOOK NOTES

ACTIVE RURAL-URBAN CO-OPERATION BUILDS EFFICIENT NATIONAL LIFE.—In democracies education for citizenship is based on the children's intelligent participation in community and national life. This conclusion in a new book on the country school¹ is drawn from the author's firsthand observation of life in the rural schools and communities of seven countries: Switzerland, Denmark, Sweden, Iceland, England, Italy, and the United States. In brief word pictures of each nation, she writes about high spots of country life and of rural-school activities and curriculum content. She discusses teacher preparation and describes the general educational system of which each nation's rural education is a part.

Country schools in "Democratic Switzerland" have suggestions from which rural education in all countries can profit. Although the highly decentralized organization of the Swiss rural school is regarded by some educators as formal, a number of the younger teachers are doing informal work. In one of the schools visited, the children were making plans for a trip to the Swiss National Exhibition at Zurich. In order that they might have the experience of using as many means of transportation as possible, the journey was mapped out as follows:

They planned to leave the village on foot so that the little ones could go part of the way with them; next, they would climb over the near-by pass and later take a train to the shore of Lake Thun. Here they would transfer to a boat. Once on the other shore, they would hike across a second pass and take a bus to Zurich. The return journey was to be routed differently. Not only did the pupils know the necessary time and cost involved, but they had started to save money and were studying the history of the cantons through which they were to pass, the various costumes formerly worn by the people there, and the languages spoken . . . [pp. 14-16].

Swiss children of informal rural schools also have gardens, develop co-operative projects, and earn money and learn how to spend it wisely. They buy supplies for the school, keep books, and compute profits.

The chapter on "Co-operative Denmark" opens with an inviting description of the meetings on the *Bystaevne* in the village square, where Danish farmers learned the first lessons of agricultural co-operation. The national effort to achieve a higher cultural level for all the people and political freedom for the peasants is discussed as a background for rural education and for the development of the folk high school and the free elementary schools. The chapter closes

¹ Iman Elsie Schatzmann, *The Country School: At Home and Abroad*. Chicago: University of Chicago Press, 1942. Pp. xvi+234. \$1.50.

with a vivid picture of Danish rural life on each of the two main kinds of farms, the medium-sized farm and the small farm.

Two-thirds of "Aristocratic Sweden's" people live in the country. Farmers play an important part in Swedish life. Despite the fact that Sweden has a class of nobility, the farmers are respected by the urban people. Deeply religious, the Swedish people are interested in social problems and eager for social and cultural improvement, a fact confirmed by the formation of the Nobel Foundation, which awards prizes throughout the world for contributions to human progress. Sweden has many types of rural elementary schools—a result of its uneven distribution of population and of educational facilities. Mongolian tribes of Laplanders, for example, constitute a race problem with special educational difficulties.

"Cultured Iceland" consumes more books per person than any other nation. Icelanders, called the purest of Nordics, are an agricultural people who live by fishing and farming. Their cultural level is high. Rural education presents a difficult problem. Since strong winds make it difficult for young country children to reach school, the age for entering rural schools has been placed at ten years. Before they enter, the children are taught to read and write by their parents.

"Conservative England" is a nation that has "a most intricate pattern of public and private school systems" (p. 92). England's new rural schools are well equipped, and the English language is the core of instruction. School gardens are cared for by the children. Special teachers travel from village to village to give instruction in arts and crafts. England has the significant village college, a rural post-primary and adult-education experiment. A typical village college may serve from five to eleven villages. It houses the senior school and the social-service branches of the community.

In "Corporate Italy" the government supplies and directs the public-school system; it selects the teachers, chooses the textbooks, provides religious training. "Children, adolescents, and adults are imbued with the idea of service to the state, which they are taught has their welfare at heart. Thus Fascist leaders hope that Italy's future generations will consider good citizenship and fascism synonymous" (p. 116). Rural elementary education in Italy has two cycles, one including children between the ages of six and nine; and the other, boys and girls between nine and twelve years of age. In Italy are found the original schools for peasants, *scuole per i contadini*, organized and supported in the past by voluntary associations of landowners. From the beginning they were progressive schools in the true sense of the word, distinct from the public rural elementary schools.

The chapter on "Paradoxical United States" is introduced by the following paragraph.

The traveler in America who explores only large cities may gain through his meeting with urban groups of Americans an appreciation of the intellect and hospitality of "Miss Liberty" but scarcely of her heart. The pulsations of her great cities, so dynamic, so electrically regulated, do not generate the real life-stream of the nation. The source of

PRODUCING AND USING EDUCATIONAL BROADCASTS.—The Institute for Education by Radio has been in existence for more than ten years—a long time in the history of educational broadcasting. In examining the proceedings of its twelfth meeting,¹ one is impressed by the progress that has been made through the co-operation of educational, commercial, and other groups in efforts to utilize the radio in the best interests of democracy.

The discussions of the various groups and the statements of the speakers reported in this book present a fascinating picture of the tremendous variety of forces and issues involved in educational broadcasting. Within its pages are expressed the viewpoints of chain and independent broadcasters, educators and research workers, officers of national organizations, and representatives of governmental agencies. Separate sections are devoted to "Radio in the Current Crisis," "Radio in School," "Children's Broadcasts," "Educational Broadcasts for Adults," "Techniques of Educational Broadcasting," "Research in Educational Broadcasting," and "Agricultural Broadcasts."

Although the discussion of the role of radio in wartime occurred several months before the entrance of this country into the war, what was said in this connection is of more than passing interest. The statements of broadcasters, commentators, military men, and governmental representatives indicate an awareness of problems of information and morale. It is clear that there was a genuine desire to formulate a workable plan of action and to profit by the experience of nations already at war.

The section on radio in the school contains discussions of a number of issues. One speaker reported the use of transcriptions to circumvent the difficulties of fitting broadcasting hours to complex class schedules. Another suggested an additional use of transcriptions in a description of a "listening room," where pupils might go to hear recordings in much the same manner as they now visit the library to use printed reference materials. Music education by radio has been practiced since the early days of school broadcasting. Today techniques are available for the direct teaching of the makeup of a symphony orchestra and the conductor's responsibility in relation to the orchestra. Successful use of the radio has been reported in teaching the background of American and European music and in motivating vocal music.

The out-of-school listening habits of children have been the subject of some research and much discussion. Parents and teachers are most concerned about the influences on children of highly emotional crime and adventure programs, while broadcasters must consider audience appeal and commercial value. The research reported does not actually prove that harmful results come from children's radio listening, but a question was raised concerning the broadcasters' responsibilities for the development of discrimination on the part of the child in selecting radio programs. A survey showing that 85-90 per cent of the juvenile

¹ *Education on the Air*. Twelfth Yearbook of the Institute for Education by Radio. Edited by Josephine H. MacLachy. Columbus, Ohio: Ohio State University, 1941. Pp. x+358. \$3.00.

audience listen to adult news broadcasts suggests the need for adaptation of programs aimed at grown-ups and at the same time throws doubt on the importance of programs designed especially for the out-of-school listening of children.

The paucity of research in educational broadcasting is reflected in the fact that the section on this subject contains only twelve pages. Surveys to determine the number and the kinds of listeners at various times and seasons and the reactions of the radio audience to various types of programs have constituted the main body of research carried on by the major broadcasters. There has been some research by educators into the degree of school use of radio and the values of various programs. A survey made by the University of Wisconsin Research Project in School Broadcasting revealed that more than fifteen thousand classes listened regularly to the programs of the Wisconsin School of the Air. The favorable judgments of teachers and supervisors regarding the value of these programs were not in complete agreement with the results of a testing program carried out among a sample of the listeners.

One of the chief educational values of radio is that it can bring to the classroom on-the-spot descriptions of important events as they occur. Closely allied to this use is the preservation of such events and conditions characteristic of present civilization as lend themselves to auditory reproduction. The latter is the main subject of discussion in the portion of the book devoted to documentary broadcasts. Among the aspects of the American scene so far documented are the American ballad, the lot of the migratory worker, and the attitude and opinion of the draftee. Agencies participating in this work—the Library of Congress, a few broadcasters, and some private individuals—have hardly made a beginning. The Institute's recognition of documentary broadcasting may serve to stimulate educators to look about them for scenes and events in their own communities which have sufficient educational value to be preserved in the form of transcriptions.

Taken as a whole, this book presents a good overview of the field of radio in education. Most of the important issues and problems are raised, and a fair conception of what is being done in the field is given. Teachers, however, may feel that insufficient consideration has been given to the techniques of using radio and recordings in the classroom. Recent research is referred to throughout the book, but this research is rarely described fully enough to satisfy the scholarly reader, while the lack of adequate footnotes makes it difficult to find the original sources. The organization of the book lends itself well to skimming, and many readers will find it sufficient to use this technique, reading carefully only those sections of particular personal interest.

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LIBRARY FACILITIES FOR NEGROES.—There are thirteen southern states in which certain public services are provided on different bases for the white and the colored populations. These states are not the richest states in the Union (in

fact most of them are at the other end of the economic scale), and consequently their restricted public facilities are rather less than adequate for both races. Although the courts have ruled in favor of "substantially equal" facilities for Negroes, time, custom, and ingrained attitudes have brought about a condition of some leeway in what is considered equality. Nowhere is this situation more noticeable than in the field of public-library service.

Mrs. Gleason's recent study^{*} indicates that only a fifth of the South's 8,800,000 Negroes have access to public-library facilities, while two-fifths of the white population receive such service. When it is realized that the libraries of the South generally lag behind those of other sections of the country, the great inadequacy of the service to Negroes is readily understood.

The author's presentation of background material on the South and her discussion of the gradual erosion of the principles of the Thirteenth, Fourteenth, and Fifteenth amendments to the Constitution are most illuminating. The legal basis of the Negro's public-library service rests on special provisions for libraries for his use, since it is rarely presumed that his legal rights are the same as those of the white race. In most cases the facilities, if any, are inadequate and inferior to those for the general public. Two million Negroes are in areas where there are libraries for white persons but none for Negroes. Negroes as individuals can rarely afford the expense and the effort involved in taking legal action to obtain the same or equal privileges. They must take the course of making the best use of the libraries available to them, striving for the provision of better libraries, and working for more liberal attitudes.

Some library privileges are available at both the state and local levels. The latter is much more important and includes Negro branch libraries, Negro library stations, independent Negro libraries, and restricted services through regular library channels. However, the situation in rural areas, where more than two-thirds of the Negro population reside, is extremely bad. Only 5 per cent, or one rural Negro in twenty, has access to a public library.

The report of this study includes significant facts regarding financial support and administration of library facilities for Negroes and a description of independent Negro libraries and facilities available through Negro schools and colleges. The interpretations are well supported by concrete illustrations, and important statistics are presented in tables. Mrs. Gleason's conclusions are carefully drawn and indicate the practical procedures, in view of the economic and cultural conditions, by means of which improvements may be effected.

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^{*} Eliza Atkins Gleason, *The Southern Negro and the Public Library: A Study of the Government and Administration of Public Library Service to Negroes in the South*. University of Chicago Studies in Library Science. Chicago: University of Chicago Press, 1941. Pp. xvi+218. \$2.50.

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY
AND PRACTICE

- Corrective Treatment for Unadjusted Children: Principles and Practice* by Nahum E. Shoobs, *Manual* by George Goldberg. New York: Harper & Bros., 1942. Pp. viii+240. \$3.00.
- FITT, A. B. *Seasonal Influence on Growth, Function, and Inheritance*. Educational Research Series No. 17. Wellington, New Zealand: New Zealand Council for Educational Research, 1941. Pp. xii+182.
- GREENE, HARRY A., JORGENSEN, ALBERT N., and GERBERICH, J. RAYMOND. *Measurement and Evaluation in the Elementary School*. New York: Longmans, Green & Co., 1942. Pp. xxiv+640. \$3.75.
- Health in Schools*. Twentieth Yearbook of the American Association of School Administrators. Washington: American Association of School Administrators of the National Education Association, 1942. Pp. 544. \$2.00.
- KANDEL, I. L. *The End of an Era*. Educational Yearbook of the International Institute of Teachers College, Columbia University, 1941. New York: Teachers College, Columbia University, 1941. Pp. xviii+394. \$3.70.
- KORZYBSKI, ALFRED. *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics*. Lancaster, Pennsylvania: Science Press Printing Co., distributors for the International Non-Aristotelian Library Publishing Co., 1941 (second edition). Pp. lxii+806. \$6.00.
- LINDQUIST, E. F. *A First Course in Statistics: Their Use and Interpretation in Education and Psychology*, pp. xii+242, \$2.50; *Study Manual for "A First Course in Statistics,"* pp. 118, \$1.00. Boston: Houghton Mifflin Co., 1941 (revised).
- LONG, C. DARL. *School-leaving Youth and Employment: Some Factors Associated with the Duration of Early Employment of Youth Whose Formal Education Ended at High School Graduation or Earlier*. Teachers College Contributions to Education, No. 845. New York: Teachers College, Columbia University, 1941. Pp. viii+84. \$1.60.
- LUCAS, MARY RINEHART. *The Organization and Administration of Library Service to Children*. Chicago: American Library Association, 1941. Pp. viii+108. \$1.25.
- NUTTALL, L. JOHN, JR. *Teacher*. New York: Macmillan Co., 1941. Pp. xii+164. \$1.75.
- Print, Radio, and Film in a Democracy: Ten papers on the administration of mass communications in the public interest—read before the Sixth Annual Institute of the Graduate Library School, The University of Chicago—August 4-9, 1941*. Edited with an Introduction by Douglas Waples. The University of Chicago Studies in Library Science. Chicago: University of Chicago Press, 1942. Pp. xiv+198. \$2.00.

- SCHATZMANN, IMAN ELSIE. *The Country School: At Home and Abroad*. Chicago: University of Chicago Press, 1942. Pp. xvi+234. \$1.50.
- The Social Studies in the Elementary School*. Edited by William E. Young. Twelfth Yearbook of the National Council for the Social Studies. Washington: National Council for the Social Studies, 1941. Pp. xx+244. \$2.00 (paper), \$2.30 (cloth).
- SORENSEN, HERBERT, and LEMON, ALLAN CLARK. *Workbook for Psychology in Education*. New York: McGraw-Hill Book Co., Inc., 1942. Pp. viii+178. \$1.50.
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Educational News and Editorial Comment

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ADJUSTING THE SCHOOLS TO THE WAR SITUATION

IN WAR it is essential that activities back of the lines be carried on with no more disruption and dislocation than necessary. There is always the danger that individuals and organizations, in their desire to be helpful, may abandon what they have been doing for something which is, in fact, less useful and significant. At the same time, when it becomes clear that old programs and old procedures are in need of modification in order to help win the war, the necessary changes should be made without delay. Our first and most pressing task as a nation is to develop our military strength. This is total war against a powerful and resourceful enemy, and the only course open to us is to leave no act undone which will help us to hurl against him, at the earliest possible moment, the full force of our armed might. We must put an end to situations in which our military strength is "too little and too late."

When the present is pregnant with crisis, there is always the temptation to give attention to problems that are immediate and pressing and to postpone until some future time the consideration of issues and policies not requiring instant decision. Of course our first task is to win the war; but, while we are doing that, we should also

be giving thought to the kind of world-order which we hope to build, and we should be taking into account the general principles and the specific policies which we shall have to employ to bring that world-order into being. We dare not face the peace table as unprepared intellectually and morally to deal with the problems of peace as we faced the war unprepared to unleash our potential military might. In time we shall overcome our initial unpreparedness for war, but, if we are unprepared at the peace conference, we may enact a tragedy that may affect the fate of mankind for longer than we suppose.

Those of us who are engaged in education should, therefore, be asking ourselves two questions: (1) In what ways can our program be modified so that youth may be enabled to contribute something of value to the winning of the war? (2) In what respects does our program need to be changed to enable youth to accomplish, after the war, the still more arduous task of making democracy a reality in the lives of men?

In a bulletin entitled *A War Policy for American Schools*, recently made available by the Educational Policies Commission, eleven groups of activities are listed through which organized education may meet its responsibilities for the successful outcome of the war. These activities are as follows:

- Training workers for war industries and services
- Producing goods and services needed for the war
- Conserving materials by prudent consumption and salvage
- Helping to raise funds to finance the war
- Increasing effective man-power by correcting educational deficiencies
- Promoting health and physical efficiency
- Protecting school children and property against attack
- Protecting the ideals of democracy against war hazards
- Teaching the issues, aims, and progress of the war and the peace
- Sustaining the morale of children and adults
- Maintaining intelligent loyalty to American democracy

Providing opportunities for pupils to contribute toward winning the war In numerous ways the schools can prepare children to contribute materially to the nation's productive capacity. We need to utilize fully, and in many instances to expand materially, those facilities for vocational education which will prepare youth to enter war industries or one or an-

other of the service occupations. Many youths in the age group from eighteen to twenty, if they have received adequate training in school, can man the new jobs of our rapidly expanding war industries or take the place of older men who are drawn off into the service. It seems wise, too, to include girls in the vocational courses which prepare for entrance into the war industries. Before the war is over, several million young women will probably be doing work in our factories which has customarily been done by men only.

Not everyone, however, will be working in a war industry. Perhaps half of our working force will still be engaged in the production of goods and services for civilian consumption. Here is another area in which the schools can render an important service by providing adequate vocational education. In rural areas stress should be placed on vocational agriculture and farm mechanics—on teaching youth how to operate and repair tractors and all the types of machines used on and about the farm. Young women, especially in urban communities, can be prepared to fill positions as secretaries, filing clerks, Red Cross workers, home nurses, and to work in a score of other service fields. The time may come when we shall need to resort to school and home gardens to supplement the output of the farms. Certainly home-economics teachers should begin now to place special stress on the canning and the preserving of fruits and vegetables.

During the coming summer about thirty million children will be having vacations from school, and many of the nine hundred thousand school teachers and other employees will be available for some kind of service. In every community steps should be taken at once to utilize effectively the services of pupils and of such teachers as may be available. Each community will need to work out for itself the methods of utilizing these services, but it seems that a large number of these young people might well be employed in agricultural work.

Normally, production and consumption are but reverse sides of the same thing. The schools have neglected consumer education in peacetime, and the necessities of war should cause them to give it the emphasis that it deserves. Certainly the schools can do much by way of giving pupils a knowledge of nutrition and thus contribute to a more economical utilization of our food supply as well as to improved health. In general, American consumption habits are char-

acterized by a great deal of waste—waste which in time of war is inexcusable. In order to make what we produce go as far as we can, in order to release energy for the production of war materials, we shall have to accent scientific consumption habits. Moreover, we may have to learn to use, as far as we can, commodities produced in America, in order that shipping may be released to carry munitions and food to the fighting fronts and to our allies. Finally, to prevent threatened shortages, the schools can help to salvage and turn over to the government many necessary materials.

Of course it is going to require large sums of money to finance the war. School children should participate in this enterprise. Especially should they be encouraged to invest their own savings, and particular effort should be put forth to provide the older pupils some opportunity to work and earn. However, care should be taken not to let pupils engage in fund-raising to the serious neglect of their regular school work.

Morale and physical well-being are essential in the winning of the war. We shall have to husband our man-power as well as our physical resources, and we shall have to face many dark hours with courage and determination, as we are now doing. The schools will need to tighten up and extend their programs of health and physical education. This necessity may involve more extended and more frequent health examinations and, where at all possible, the adoption of remedial measures in individual cases. Now is the time to develop in our children habits of living which contribute to physical fitness.

A high morale in young people is equally essential. They should know why we are at war and what the issues involved are. They should be brought to feel that we are engaged in a cosmic conflict which will decide our future and the future of many millions of other peoples the world over. We should remember that morale is something more than intellectual approval; it also involves a willingness to act and, if need be, to suffer. There is a danger, however, that the war may develop in many children a sense of frustration, of insecurity, of personal catastrophe. To avoid this result, teachers should bring their pupils to realize that we as a nation and they as individuals are destined to play an important role in the most stupendous drama of human history. We may devoutly hope that most children in the schools today will not be called upon to face the enemy on the

field of battle, but certainly they must be prepared to meet their high responsibility in bringing order and peace, equity and good conscience, into a world disrupted by the ravages of war.

It goes without saying that school authorities, working in co-operation with the local civilian defense agencies, should undertake the protection of children and school property against the hazards of war. First aid should be taught to many teachers and to all the older pupils. Each school should organize its own air-raid wardens, incendiary-bomb squads, first-aid staffs; it should select and prepare shelter areas, conduct drills, and supply itself with the necessary protective equipment. Of course parents should be informed precisely what the school is doing in order that fears and misunderstandings may be prevented. The defense program of the schools should be closely integrated with the total defense program of the community. The obligations of the school to protect children and property against the hazards of attack should be taken seriously; the program should be worked out in detail, and enough drill should be employed to make the necessary procedures a matter of routine.

Helping pupils practice the democratic way of life This is a war to decide who shall write the specifications of the new world-order that is now emerging. We shall bequeath to future generations a world-order founded on despotism or a world-order in which it may be possible for democracy to spell itself out in the lives of men. In reshaping our school programs, we should give priority to those matters which are essential to the winning of the war, but at the same time we should not neglect that part of the program which is essential in the preparation of pupils for democratic living. Come what may, we cannot permit the smoke of battle to black out our democratic ideals; we shall have to cultivate more vigorously than ever an unshakable loyalty to the basic assumptions of democracy. Democracy is a great faith in the humanity of man, a faith that men everywhere are capable of achieving a humaneness, a dignity, and a sense of equity and good conscience which all should respect. We must not let war-bred hatred and righteous indignation destroy this faith. It is also a basic assumption of democracy that men can govern themselves, and this, too, we should not allow pupils to forget. War necessitates the concentration of power, but, even so,

it would be dangerous to develop in youth a follow-the-leader psychology. Democracy also assumes that men will be possessed of enough good will and enough loyalty to the common good to resolve their differences without resort to force and violence. Teachers need to stress, as never before, those motivations, drives, values, sympathies, and sensitivities which are essential in the democratic way of life, and they need to provide those concrete experiences through which democratic ideals become a part of the intellectual and emotional equipment of pupils.

Stated in simple terms, the most important social obligation of American schools is to cultivate in the pupils that degree of understanding of the workings of our political, economic, and social arrangements which is necessary to enable them to make wise decisions with respect to matters of social and public policy. If democracy is to live in the world, indeed if men are to live peaceful and orderly lives under any form of government, the children of this and the next generation must be prepared spiritually and intellectually to meet the challenge of their day. This challenge is to devise a social technology that will master the forces unleashed in the world by a physical technology. In the years that lie ahead, pupils now in school will be called upon to experiment boldly, and teachers will fail unless they cultivate in their pupils the spirit of social invention and contrivance. These children, when they become adults, will need to invent new institutional forms in the area of government, they will face the task of reconstructing the economic order, and certainly they will be forced to work out a new pattern of international relationships. To do these things requires more than good will, more than a devotion to democratic ideals, more than skill in the processes of democratic living; it requires knowledge, broad and precise.

To illustrate briefly what is meant by the statement that teachers must cultivate in children social intelligence and a will to experiment with institutional forms, consider our position after the war. It seems clear that as a nation we have entered world-politics and that from the position we have taken there is no retreat. We cannot return when this war is over to our old isolation. Come what may, we must not have a return to normalcy in the 1940's like that of the 1920's. When peace comes we shall be tired, very tired emotionally, and

the springs of our idealism may be running dry; but we cannot, with honor or with safety, refuse to play a leading role in reorganizing the political order of the world. In some way we shall have to co-operate in working out a system of international relationships that will not break down periodically and end in war. One thing seems clear: we shall have to abandon the scheme of independent sovereign nations which has failed so often and so tragically. It seems, too, that a league of nations with no military behind it offers little hope. Some put their faith in a federated Europe, but others believe that that is not the solution. The suggestion has been made that we may have to join other democratic nations in creating a federal state similar to the United States; we shall have to join Canada, Great Britain, Ireland, Norway, Sweden, Denmark, the Netherlands, Australia, New Zealand, and other democratic nations in a new federal union. Whatever the solution, here is a problem about which teachers and pupils should be thinking. They may not arrive at the proper solution, but they can help prepare us as a nation for that change in our psychology which must take place if we are to co-operate with other nations in the establishment of a new world jurial order.

This is only one of the major problems that youth will soon be called upon to solve. The high obligation of those who are concerned with the education of the oncoming generation is to identify these problems far more effectively than has been done in the past and to do what they can to equip young people spiritually and intellectually to face the problems.

In this hour of crisis the schools must give priority to those activities which are essential to the winning of the war. They should not, however, unless it becomes absolutely necessary, permit these activities to deflect them from their major goal, that of providing young people with a good general education. When I first began to think about what the schools must do in time of war, I must confess that I was fearful that we might greatly impair our regular program. I do not now believe that impairment need be the result. In fact, some of the changes in our program, for example, emphasis on consumer education, should result in a positive advance. While the schools are helping children serve their nation as it fights for its life, while the

schools are helping pupils grasp the essential elements of a general education, they should also make certain that the pupils under their tutelage acquire that breadth and that precision of knowledge which will be needed by these young people if they are to play their part in social experimentation, in working out co-operatively the design of a new society.

MOBILIZING THE RESOURCES OF EDUCATION FOR VICTORY

AMERICAN education has always been invested with a public interest; its very origins are to be discovered in the use of the democratic state as a form of political organization; it has always been dedicated to the nation's service; its ultimate goal has been the common good. In this hour of crisis, educators stand ready to contribute to ultimate victory in the war by using, in every way possible, the institutions committed to their care.

Educational leaders must be informed if they are to work at full strength on the war program. They will, therefore, welcome the appearance of a new publication of the United States Office of Education which bears the title *Education for Victory*. The new periodical will appear bi-weekly and will replace *School Life* for the duration of the war. According to the official announcement, the new publication will carry:

Important official announcements, orders, statements, and plans of various federal government agencies vital to education;

News of wartime programs undertaken by the Office;

Actions of other government war agencies which affect education;

News of what schools, colleges, and libraries are already doing toward winning the war; and related material.

Among the topics discussed in the first number are the following: the purpose and the work of the United States Office of Education Wartime Commission; inter-American educational relations; what the schools and colleges are doing to contribute to the winning of the war; libraries and the war; higher educational institutions and the war; vocational defense training for wartime production; measures before Congress relating to education and national defense; and post-war planning.

The subscription rate to *Education for Victory* is one dollar a year. Orders should be addressed to the Superintendent of Documents, Washington, D.C.

THE WARTIME COMMISSION OF THE UNITED STATES
OFFICE OF EDUCATION

SOME time ago Paul V. McNutt, federal security administrator, requested the United States Commissioner of Education to establish a wartime commission on education. Mr. McNutt describes the purpose of the new commission as follows:

Schools, colleges, libraries are the keys to America's mind. And the time has come to create the wartime machinery to hasten an adjustment upon which our national life depends. What can educational agencies—public and private—do to hasten victory?

That is part of the responsibility of the Federal Security Agency and its Office of Education. That is part of my responsibility as Director of Defense Health and Welfare Services, among which education ranks high.

Accordingly, I have requested the U.S. Commissioner to effect such an organization in connection with his Office as will make possible the most direct and workable contacts both with government agencies on the one hand and educational institutions and organizations on the other. The object is (1) to facilitate the adjustment of educational agencies to war needs, and (2) to inform the government agencies directly responsible for the war effort concerning the services schools and colleges can render, and (3) to determine the possible effects upon schools and colleges of proposed policies and programs of these government agencies.

When such an organization is in operation in connection with the Office, I shall be glad to receive from time to time, through the Commissioner, the definite proposals for government action which need to be brought to my attention. I shall assist in the development of those proposals which seem to me to be feasible by assuring their proper consideration by the appropriate government officials, including the President.

VICTORY CLUBS FOR SCHOOLS

THE faculty of the University of Chicago Laboratory Schools, acting through a committee of which Glenn O. Blough is chairman, has just submitted to five hundred teachers and administrators a plan for co-ordinating all war activities in the schools. These selected educators were asked to criticize and state their willingness or

unwillingness to co-operate in the formation of Victory Clubs. The entire project was set forth in a small bulletin, the substance of which is reproduced below.

SCHOOLS AND THE WAR

The schools of America are faced with the gravest problem in their history—guiding children in a world at war and preparing them for their responsibilities in the world thereafter. Most schools recognize this problem, and many are trying to do something about it. There is great confusion, there is much wasted effort. Energies are dispersed in every direction.

Confusion, wasted effort, and dissipated energies are evident because there is little attempt at co-ordination. Few individuals understand how to proceed, and conflicting suggestions come from varied sources. Many schools are seeking guidance and will welcome an opportunity to engage in co-operative activity in this time when the schools' work is of such great importance. If your school is one of these, the content of this bulletin will be of interest to you.

A PLAN FOR CO-OPERATION

The staff members of the Laboratory Schools of the University of Chicago feel keenly the good that might result from a co-operative venture undertaken with the following aims. The staff is ready to put forth every effort to help achieve these aims.

1. To use the present situation to preserve democracy by (a) helping children understand their responsibilities toward their democratic country, (b) showing them what it means to live where there is freedom, and (c) helping them to see what we are fighting for.
2. To give direction and unity to purposeful activities, which will include the buying of defense stamps, collecting iron, and conserving essential material but which will *go far beyond* such activities into the realm of helping pupils understand why these activities are necessary. The activities will include reading daily papers to develop an understanding of what the vital war materials are being used for, studying some of the *causes* of wars, developing the concept that *the children themselves* will make the decisions in tomorrow's government, showing them how important it is that everyone work for the good of the whole group. All activities must be directed toward developing a comprehension of some of the major understandings which are an essential part of the equipment of the girls and boys who will be tomorrow's women and men.
3. To help teachers organize and gain a feeling that they are being effective in their war efforts.
4. To acquaint teachers and pupils with the activities taking place in various other schools.
5. To make use of school subjects (arithmetic, science, English, social studies, etc.) in carrying out these purposeful activities.
6. To help teachers see that one important way to help win the war and the peace is to manifest the ideals of democratic living in daily contacts with pupils

so that they may come to believe, because they have had rich and varied experience in it, that democracy is a practicable way of life.

The Laboratory Schools are willing to offer their facilities and act in the capacity of a clearing-house to work with any other interested teachers. The staff of the Laboratory Schools is willing to undertake the following activities as its share of the project.

1. Helping schools to establish organizations, which might be called Victory Clubs, to become the centralized organizations for carrying on war activities.
2. Issuing a bulletin that will contain a plan for establishing and carrying on such clubs. The plan will be definite enough to be of specific help; flexible enough to allow for originality on the part of teachers and pupils using it.
3. Publishing frequent *Victory Club Bulletins* which will include:
 - a) Additional specific suggestions for activities
 - b) Accounts of the work of various Victory Clubs
 - c) Sources of helpful material for pupils and teachers
 - d) Ideas for club meetings
 - e) Ways to vitalize school subject matter by using it in connection with war activities
 - f) Articles on such subjects as "What Liberty Means," "What I Can Do When I Vote," "Why We All Must Work To Win"

RURAL AMERICA—A CHALLENGE TO SOCIAL AND EDUCATIONAL STATESMANSHIP

DEMOCRACY as a way of life and as a social philosophy owes much to rural America. The men whose homes fringed the Atlantic seaboard in the early days of the seventeenth century were not consciously trying to build a democratic social order; but, as each succeeding generation of Americans pushed deeper into the shadows of the wilderness, as men set their faces toward the west and their hands to the conquest of a continent, old ties with Europe were loosened, aristocratic trappings and traditions were cast into the discard, and democratic idealism slowly emerged and took form in political and social institutions. Democracy as we know it is primarily the product of the wide diffusion of landownership, the product of free or cheap land. Yeomen have not played a dramatic role in the pageantry of American life; the small farmer has not been a particularly striking figure when compared with the southern planter or the northern industrialist. But it was in the minds and hearts of these yeomen, pioneers in both a physical and a spiritual sense, that the great American dream took form, the vision of a land of freedom

and equality. On the freehold we builded our security, and on the freehold we laid the cornerstone of our democratic structure.

To one who is familiar with the role of rural America in the life of the nation, the course of events for the past half-century or so must be viewed with grave concern. We have changed from a rural to an industrial, urban civilization with a swiftness that few realize, and, as we have done so, conditions have developed that in some way must be corrected.

One of these conditions which directly affect education, and indeed the whole quality of individual living, is the loss of landownership.¹ Farm-tenancy rates have been steadily rising for more than a half-century. In 1900, 31 per cent of the farm land of the nation was being operated by tenants or croppers; by 1935, 45 per cent was under lease to operators. Sixty years ago 26 per cent of all farms were being operated by tenants and croppers; in 1935, 42 per cent of all farms were being so operated. In nine states, eight of which are in the South, one-half or more of the farmers till land which they do not own. The farm population of the South is composed predominantly of tenant farmers and croppers. In South Carolina, Georgia, Alabama, Mississippi, Arkansas, Louisiana, and Oklahoma, between 60 and 70 per cent of all farmers belong to the tenant class. Recently tenant farming has been spreading rapidly into the Middle West, notably Iowa and Illinois. It is estimated that rents paid by farmers to non-farmers rose from \$561,000,000 in 1910 to \$829,000,000 in 1937. Clearly forces are operating which make it increasingly difficult for a large percentage of the farmers of the nation to gain or to hold title to the land that they work. To climb the ladder from laborer to tenant and from tenant to owner is no longer easy. When all the factors are taken into consideration, it appears that farm youth in the future will find landownership a receding goal.

Increase in farm tenancy, however, is not an adequate measure of the loss of landownership by farm operators. Mortgage debt is also

¹ The data on loss of landownership have been taken from:

a) O. E. Baker, Ralph Borsodi, and M. L. Wilson, *Agriculture in Modern Life*, pp. 44, 46, 50. New York: Harper & Bros., 1939.

b) *Farm Tenancy*, p. 89. Report of the President's Committee. Prepared under the Auspices of the National Resources Committee. Washington: Government Printing Office, 1937.

a factor. For many years the ratio of mortgage debt to the value of farm real estate has been increasing. The total equity of farm operators in farm real estate dropped from 50 per cent in 1910 to 39 per cent in 1935.

The loss of landownership has been accompanied by the concentration of land into large holdings. The 1940 Census shows that industrialized farms have increased markedly both with respect to number and with respect to total acreage. The small, family-sized farm is giving place to "baronial estates" on the one hand and to small subsistence farms on the other. Technology in America bids fair to bring about an agrarian revolution comparable to that produced by the inclosure movement in England at an earlier day. The following significant paragraphs in point are quoted from an article by Edgar Schmiedeler which appeared in the journal *Rural Sociology*.

Here are a few 1940 Census figures that are to the point. A meager 1.6 per cent of the farmers of the United States, those with farms of a thousand acres or more, now operate 34.3 per cent of all land in farms. Farms of 10,000 acres and over account for 14 per cent of all land farmed in the United States. These latter farms have increased both in acres and in number by 18 per cent since 1935 alone. The farms in the middle acreage bracket are being absorbed by the larger scale operator. They are struggling unsuccessfully for survival. Thus, tracts ranging from 50 to 175 acres dropped from 28.3 per cent of the total number of United States farms in 1930 to 25.0 per cent in 1940. Of particular significance is the fact that even in the period of general upturn between 1935 and 1940 this middle-size farm did not regain its former hold. It continued in decline.

Taking a somewhat longer period—that is, from 1910 to 1935—one notes the same trend. Farms of 500 acres and more increased 46.0 per cent; those under 50 acres grew by 19.6 per cent. Farms between, that is farms ranging from 50 to 500 acres, decreased by 6.8 per cent. The old baronial estate at one end and the small holding of the serf or peon at the other, seem to be coming to the fore. The family-size farm, the pride of a free and independent yeomanry, is losing out. History has already gone far towards repeating itself in rural America.

What the unfortunate results are, in the case of the many who are pushed off their farms in this revolution in land, is known in some measure by Americans—thanks, chiefly, to the volume *Grapes of Wrath*, by John Steinbeck, and the moving picture based on it. Whatever may be said of some of the details, the outline of his descriptive picture is true to fact. And the results have been much

the same in other countries in the past. This was strikingly the case in England at the time of "the inclosures," as witnessed by Sir Thomas More's description in his *Utopia*. It seems to contain everything but the modern jallopy, the term Joad, and, of course, the common-law marriage.

Former landowners and tenants are set adrift in search of work which will open the door to even a meager livelihood. On this Professor Schmiedeler remarks:

These sources show that many former owners of family farms are no longer owners. They show that many farm renters are no longer renters. Both owners and renters in large numbers have been pushed off the land. They have been dispossessed. They have become migrants, wanderers, landlopers, people without land. According to one member of the Tolan Committee there are today in the United States perhaps four million men, women, and children constantly on the move, seeking a means of livelihood where they find it. Nor does that tell the whole story. There are besides these "habitual migrants"—a variety of agricultural workers who follow the crops—hundreds of thousands of uncounted so-called "removal migrants" or farm families who are forced to move year after year, and who are commonly the first to be pushed into the ranks of the migratory workers. In addition there are at present the "defense migrants." Regarding these latter is it too pessimistic to ask, "What will be the aftermath?"

In the light of these facts one may well ask, what is the role of education with respect to rural America? Whatever the total answer may be, one thing seems certain: merely to improve the quality of rural schools will not be enough. Certainly it will not be enough to educate farm boys and girls in such a way that they will adjust themselves as best they can to the new conditions. Education cannot escape the larger responsibility of social statesmanship; it cannot side-step the task of making the American people as a whole aware of the major problems of rural America. More important and more difficult still, it must prepare American youth, spiritually and intellectually, to deal with these problems by devising concrete programs of social action.

POST-WAR PLANNING

THE National Resources Planning Board has initiated a series of pamphlets dealing with problems and planning in the post-war period. One of these, entitled *After the War—Full Employment*, was prepared by Professor Alvin H. Hansen, of Harvard University. Professor Hansen sets forth in broad outline the essential elements

of a program which he thinks will result in full employment after the war and at the same time protect freedom of enterprise, collective bargaining, free choice of occupation, and freedom for co-operative action. Lack of space prevents our presenting a detailed analysis of Professor Hansen's arguments, but his main suggestions are:

First, with respect to the war period, the following policies are indicated:

1. High corporate income and excess-profits taxes.
2. Sharply progressive estate taxes.
3. Broadening of individual income-tax base together with steeply graduated surtax rates.
4. Sharp increase in excise taxes on commodities competing with the war program.
5. Part payment of wages and salaries in defense bonds.
6. Qualitative shift in the components of consumption.

Second, with respect to the post-war period, the following policies are suggested:

1. Retention of progressive (graduated) tax structure and broadened tax base, with major emphasis on the individual income tax and less reliance on the corporate income tax.
2. Sharp reduction in defense consumption taxes.
3. Adequate plans by private enterprise for private-investment projects in manufacturing plant and equipment, in railroads, public utilities, and housing.
4. Adequate program of public-improvement projects including a nationwide development of national resources, express highways, urban redevelopment (involving among other things outlays in terminal facilities and reorganization of urban transportation), and a reorganized public housing program (including the setting-up of a Housing Research Laboratory designed to reduce construction costs and thus enlarge the scope of private housing construction).
5. Expansion of public-welfare expenditures—federal aid to education, public health, old-age pensions, and family allowances. This involves partly an expanded program, and partly a means of reducing state and local property and consumption taxes, thereby stimulating private consumption expenditures.
6. International collaboration to pursue internal policies designed to promote active employment; to explore developmental projects in backward countries; and to implement ways and means to open outlets for foreign investment, promote world-trade and the effective world-wide use of productive resources.

Readers interested in the complete statement on which these suggestions are based, may obtain a copy of the pamphlet from the Superintendent of Documents, Washington, D.C.

NEWTON EDWARDS

WHO'S WHO FOR APRIL

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by NEWTON EDWARDS, professor of education at the University of Chicago. RUTH WOOD GAVIAN, author and recently member of the staff of the Research Division of the New York State Education Department, analyzes the economics found in modern courses of study and concludes that the findings indicate a necessity for the elementary-school teacher to have a rather substantial background in the field of economics. HENRIETTA HOLLAND, teacher of Grade VI in the Roosevelt School at San Bernardino, California, describes the types of difficulties which children meet in long-division examples and gives suggestions for teaching this process in such a way as to forestall some of the difficulties. RICHMOND BARBOUR, instructional co-ordinator in the public schools of San Diego, California, describes an unusual arrangement to provide school housing for an influx of children from a new federal project and reports the advantages and the disadvantages which have become evident after experience with the makeshift plan. E. C. BOLMEIER, director of secondary education in the public schools at Jackson, Mississippi, suggests advantages and limitations of the co-operative plan of providing student teachers with opportunities for practice teaching and explains the administrative details used in the operation of such a plan in Jackson. FRANK T. WILSON, instructor in education and member of the Institute for Research in Child Psychology at Hunter College, New York City, reports a study in which the results made on reading-readiness tests by beginning pupils were compared with the later reading achievement of the same pupils and discusses, in the light of the findings, the term "reading readiness." ARTHUR E. TRAXLER, associate director of the Educational Records Bureau, New York City, reports the results of a study of scores obtained on the new and the old editions of the Stanford Achievement Test. KATHERINE L. McLAUGHLIN, professor of education at the University of California at Los Angeles, supplies a list of selected references concerned with the general

educational aspects; curriculum, teaching procedures, and materials; and investigations and experimental studies in the field of kindergarten-primary education.

The writers of reviews in the current number LAURA ULERY, supervisor of the grades in the public schools at Council Bluffs, Iowa. PRUDENCE CUTRIGHT, assistant superintendent of schools at Minneapolis, Minnesota. ORVILLE T. BRIGHT, superintendent of schools at Flossmoor, Illinois. NELSON B. HENRY, associate professor of education at the University of Chicago. GRACE E. STORM, assistant professor of kindergarten-primary education at the University of Chicago.

WHAT THE ELEMENTARY-SCHOOL TEACHER SHOULD KNOW ABOUT ECONOMICS

RUTH WOOD GAVIAN

Rensselaer, New York



THE elementary-school teacher is expected to know more than a little about economics. Added to her other duties is now the responsibility for promoting the sale of defense stamps; furthering the conservation of paper, metals, rubber, foodstuffs, and the like; collecting contributions for the United Service Organizations and the Red Cross; and interpreting to the pupils the nation's effort to mobilize all its resources for war. Tomorrow she will be charged with helping children understand the conditions necessary for world-peace and will be explaining why all nations must have access to raw materials and markets.

However, the elementary-school teacher's function as an interpreter of matters economic was not imposed by the war; it was implicit in the movement from a book-centered to a life-centered curriculum. Clear evidence of this fact was found in an analysis of more than a thousand courses of study for the first six grades which were published in all parts of the United States between the beginning of 1930 and the end of 1938.¹ According to a substantial proportion of the courses in the sample, the elementary-school teacher should be able to discuss with pupils such varied economic questions as how to spend their lunch money, how to select shoes, how the postman obtained his job, what are the comparative merits of cash-and-carry and service stores, why their parents pay taxes, why there are strikes, why interest is paid on savings, why textile mills have moved south, why cities have grown up in given localities rather than in others, and why prices go up and down. Questions such as these were rarely

¹ Ruth Wood Gavian, *Education for Economic Competence in Grades I-VI: An Analysis of Courses of Study Illustrated with Sample Materials*. Teachers College Contributions to Education, No. 854. New York: Teachers College, Columbia University, 1942.

found in courses written a generation ago, nor are they found in all courses of recent date. Nevertheless, every course that can be described as "modern" will suggest consideration of some problems of an economic nature.

The change may be attributed to pressure from two quite different groups of educators. On the one hand are those who assert that, as a people, we are economically illiterate; these urge that the schools begin in the earliest grades to develop an understanding of economic fundamentals. On the other hand are those who believe in the life-centered curriculum organized around persistent problems of living or major social functions, such as making a home, conserving natural resources, providing transportation and communication, producing and consuming goods, and earning a living. The life-centered curriculum is necessarily rich in economics, since a large part of human activity is concerned with earning and spending, buying and selling, using and conserving resources.

The growing importance of economics in the elementary school is seen in the increasing number of courses of study which provide for (1) units affording opportunities for consumer education and pre-occupational orientation, such as units on food, clothing, shelter, home life, community life, farm life, storekeeping, and community helpers; (2) a broader interpretation of thrift to include wise spending; (3) emphasis on conservation; (4) emphasis on the informational content of arithmetic; (5) emphasis on the social-economic phases of history, insofar as history is retained as a separate subject; and (6) a fusion of geography and history, in which historical events are more definitely related to environmental factors, such as natural resources.

The kind of economic materials to be found in many elementary-school courses can best be shown by excerpts selected to illustrate the economic content of several common topics. The excerpts are paraphrases rather than exact quotations.

SHELTER

Draw plans for a house. Compute amount of material needed, interest on the investment, cost of borrowing money, cost of repairs and fire insurance. Compare cost of owning with cost of renting (15: 185, Grade VI).

Plan the furnishing of a house. Decide on the kind, the amount, and the cost of furnishings according to the most satisfactory and economical plan (2: 113, Grade VI).

Compare the value and cost of different methods of lighting and heating a house (6: 63, Grade VI).

Visit different types of homes. Compare a modern city home with a very old home and a rural home. Should the community be concerned with the homes in which its people live? What is an adequate home for a family? (20: 5-6, primary grades.)

FARMING

Map and compare agricultural areas in the United States which have high and low economic value. Discuss the future of people engaged in farming, giving attention to increasing tenancy, introduction of new machinery, number of farmers required, markets for farm products, etc. (14: 906, Grade IV.)

Discuss the kinds of fruit farms in our county, reasons for growing fruit in our county, kinds of work in the orchard, grading and packing, state inspection of ripe fruit, effect of storage on market price, advantages of the roadside stand to producer and consumer, competition from fruit shipped in from other areas (12, Grade V).

Compute the cost of raising and marketing apples, potatoes, and wheat. Determine profit or loss (6: 63, Grade VI).

COMMUNITY HELPERS AND OTHER WORKERS

Read stories of workers. Discuss the work of community members and how it is related to the location of the community. Discuss the work of members of the family and its relation to the community work (17: 10, primary grades).

Find out about the protection offered various community helpers. Find out what salaries are paid them. Estimate the living and other expenses of each, touching only the few expenses considered necessary for wholesome living (19: 65, Grade II).

Visit a modern industry or department store to observe what provisions are made for the health and the safety of employees (rest periods, lounging-rooms, lighting, ventilation, safety devices). Investigate the provisions made by the legislature for the inspection of working conditions in factories and mines. Make a list of occupational diseases and study the conditions conducive to them (1: 140, intermediate grades).

CONSERVATION

Children should develop an understanding of the economic value of birds. Organize a bird club to study and protect birds (13: 237-39, Grade V).

Why do people of New England prize their forests more highly today than formerly? What is the value of forested areas and of forest products? (8: 52, Grade V.)

What effect has the destruction of forests on brooks, water supplies, bird life, and soil fertility? What would be the income from one hundred acres of pine forest if the piece were properly lumbered and replanted? Try to interest your selectmen in town-forest planting (3: 41, ungraded).

What can we learn from Germany on the care of our forests? How do the people of Germany get good crops from poor soil? (7: 141-42, Grades V and VI.)

On a large map of New York State indicate the areas of greatest productivity, the areas of worn-out land, and the areas of wasteland. Observe places in your own vicinity where land has been destroyed by erosion. List the methods being tried to stop soil erosion, and discuss the effectiveness of each. Is anything being done in your community in the interests of soil conservation? (16: 168-71, Grade V.)

Find out what can be done and is being done to conserve our minerals. Explain the phrase, "Mining, a robber industry." Discuss the importance of minerals in the industrial development of the world (4: 89, 91, 92, Grade V).

THRIFT AND MONEY MANAGEMENT

Find out what is meant by a "bargain." Discuss the questions: "What is meant by spending money wisely?" "Are the lowest-priced goods always the best bargain?" "Where can we get information that will aid us in selecting food, clothing, and furnishings?" "Does instalment buying tend to make one more extravagant?" "How can one judge whether or not an investment is safer?" "What does the United States do to safeguard those who deposit money in banks and those who put money into insurance companies?" (5: 5, 33, 34, 50, Grade VI.)

Make out a budget for a family of five for one month, allowing an income of \$1,800 a year (15: 185, Grade VI).

Discuss the following topics: parents' responsibilities in earning money for food, shelter, and clothing; the cost of food and clothing; occupations of mothers and fathers; kinds of money (cash, check, money order); the how and why of saving money; buying and selling; making change (18: 23, Grade I).

MISCELLANEOUS SOCIAL-STUDIES TOPICS

How did Indians exchange goods? What did they buy and sell? What did they use for money? What was their idea of property ownership? Compare the ways in which Indians secured and prepared food, clothing, and shelter with the ways in which we secure and prepare ours (14: 881-83, Grade III).

Find out how the English colonies in America developed economically, industrially, and commercially. What was the plan of the American colonists to support the army and pay for the Revolutionary War? (9: 49, 52, Grade V.)

How have inventions changed standards of living? How have inventions increased the amount and kinds of work? What changes came with the Machine Age? How did machines aid in building our country? How did trade lead to better means of transportation and communication? (10: 14-15, Grade V.)

Why is Mexico often referred to as "a beggar sitting on a pot of gold"? Why doesn't Mexico develop her natural resources to any extent? What has caused the change from the condition of wealth of the Aztecs of old Mexico to the poverty of the peons today? (11: 206, Grade V.)

These examples throw light on the kind of training in economics needed by the elementary-school teacher.

It is evident that she requires some knowledge of consumer and household economics, which should cover the elements of money management and the selection, care, and use of the commoner kinds of consumer goods, particularly in the areas of food, clothing, and shelter. She should be familiar with ordinary consumer-business practices, such as buying on credit, obtaining a small loan, depositing money in a savings bank and a credit union, reading an electric meter, maintaining a checking account, and buying various types of insurance. If possible, she should be conversant with the basic principles of dietetics, cookery, and household management.

She should have some understanding of the economics of welfare, which should include, among other things, a knowledge of prevailing scales of living, wages, the size of relief and social-security allowances, and the cost of living. It is desirable that, in the case of these items, she know the figures which are applicable in the community where she teaches. At any rate she should know that in most communities of the United States a large proportion of the children come, in ordinary times, from families whose incomes are barely adequate or are even inadequate to provide the minimum necessities for growing children. Otherwise, how can she plan instruction that will meet the needs of her pupils in food, clothing, and shelter, in thrift and money management, in health and recreation? How can she deal intelligently with the problems of the many children whose families are or have been on relief?

She should know something about the capacity of our economic system and the prospects for attaining more adequate levels of living and social security. Thus she may foster a receptive attitude toward needed change.

The teacher in a rural school should, in addition, know something about the problems of the farmer, while the city teacher should become acquainted with some of the problems of the industries in which the fathers of her pupils are employed. Otherwise, both will be shut out of an important area in which their pupils have direct or vicarious economic experience.

Finally, the teacher needs a thorough grounding in the economic history of our country and some knowledge of that of other parts of the world. She should know a great deal about our economic resources, past and present, and about the origin of modern economic

problems and methods of dealing with them. She should be aware of the struggle of nations for raw materials and markets and economic domination, which must be resolved before there can be an enduring peace. All of this she will need to know as she teaches history, geography, or the fusion of these two in social studies, and as she talks over current happenings with her pupils; for into her classroom intrude most of the questions discussed by adults of the community and presented by radio commentators.

Is this asking too much of elementary-school teachers? Assuredly it is too much to ask of those whose training was designed for the traditional school and of those who are without training in personal and consumer economics, economic history, and contemporary problems. Nevertheless, it is being asked, and the demand grows more insistent.

The world in which we live is confronted with tremendous economic problems, and children cannot escape awareness of them. It is life, not the school, that forces these economic matters into the child's consciousness. The child early becomes aware of the importance of having money, of the prestige of wealth, of the material conception of success, and of the differences between comfort and poverty, wages and relief, earning and stealing, saving and spending, getting and giving. Almost before he learns to read, he begins to learn which economic actions are right or wrong, just or unjust, generous or greedy; which are "good business" or "bad business"; which may be employed if one can "get away with it" and which are to be avoided. Society cannot afford to allow these attitudes to be shaped wholly by traditions surviving from an economy of individualism and scarcity. It must ask the school to do, at every grade level, whatever is possible toward building more enlightened attitudes—attitudes that will enable tomorrow's citizens to function in a rapidly changing economy and help them direct it for the better.

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DIFFICULTIES INVOLVED IN LONG DIVISION AND SOME SUGGESTIONS FOR TEACHING THE PROCESS

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TYPES OF DIFFICULTIES ENCOUNTERED IN LONG DIVISION

IN SPITE of all that teachers can do to make easier the process of long division, it remains a difficult operation, not only because long division involves difficulties which are inherent in the process itself, but also because it requires control and use of subtraction, multiplication, and sometimes addition facts and operations. The difficulties which occur in long division are briefly described in the following paragraphs.

Difficulties with division facts.—Long division requires the command of a large number of division facts, including those with remainders. Teachers often teach a child the “even” division facts at the same time that they teach the multiplication facts and then expect the pupil to know that, because there are eight 9’s in 72, there are eight 9’s with a remainder of 7 in 79. They put too much blind faith in the transfer of training and fail to teach in a manner to facilitate transfer. The child should be taught the “uneven” division facts, and he should be taught how to derive the “uneven” from the “even” facts.

Difficulties with multiplication.—Long division requires the use of a great many multiplication facts, as well as division facts. In the usual method of teaching long division, a knowledge of multiplication with carrying is also needed.

Difficulties with subtraction.—Long division requires a command of the one hundred subtraction facts, and the traditional method of teaching long division necessitates the use of many kinds of difficult subtraction. In fact, Peter L. Spencer¹ made a study of the difficult

¹ Quoted in Harold W. Cook, “An Evaluation of Subtraction Examples,” *California Journal of Elementary Education*, I (May, 1933), 177-78.

subtraction used in long division and classed into twenty types the many difficulties which can occur in subtraction alone.

Difficulties which arise when the fundamental operations are put in the long-division setting.—When a child meets a fundamental process in a long-division problem, he experiences a dilemma similar to that which all of us have experienced in encountering an old friend in a strange hat and coat on a strange street in a strange city. The child may understand perfectly how to do the example $\begin{array}{r} 444 \\ -315 \\ \hline \end{array}$ but, when he sees it in the unusual setting in which it appears in this example

$\begin{array}{r} 5 \\ 63 \overline{)444} \end{array}$, he sometimes has trouble in accomplishing the work.

$\begin{array}{r} 315 \\ \hline \end{array}$

The peculiar arrangement of multiplication terms is also confusing; $\begin{array}{r} 72 \\ \times 5 \\ \hline \end{array}$ is not exactly the same as $\begin{array}{r} 5 \\ 72 \overline{)365} \end{array}$. The child experiences similarly difficult arrangements of division facts. The example $\begin{array}{r} 6 \overline{)34} \end{array}$ is one thing, but $\begin{array}{r} 63 \overline{)344} \end{array}$ is complicated by an extra figure after the 6 and after the 34.

Difficulties with placement.—Another frequent cause of error in long division is the misplacement of figures. Quotient figures are often incorrectly placed. The example $\begin{array}{r} 5 \\ 63 \overline{)344} \end{array}$ illustrates a common misplacement of the quotient figure. Then, too, the child often places

the subtrahend incorrectly, as in this example $\begin{array}{r} 5 \\ 63 \overline{)344} \\ \hline 315 \end{array}$.

The placing of the figure "brought down" often causes difficulty. The child may forget to bring down the next number, or he may

bring down the wrong figure. In the example $\begin{array}{r} 4 \\ 28 \overline{)11798} \\ \hline 112 \\ \hline 5 \end{array}$ he may bring

down the 8 instead of the 9. Again, he may become confused and bring down a number which is similar in formation to the one in the dividend, for example, 6 for 9.

All these difficulties with placement of figures seem to result from a lack of understanding of the place value of numbers. In other

words, it would seem that the child who understood the decimal system of notation would understand, without the necessity of devices, the proper placement of the figures. Paper ruled in squares has been used successfully to help the child place the figures correctly, especially in long division. Notebook paper turned so that the lines make columns and mimeographed squared paper are cheap substitutes for square-ruled paper.

Difficulties in quotient estimation.—Difficulties in quotient estimation are also a frequent cause of error and discouragement. Some long-division problems present many more quotient difficulties than do others.

The difficulty of estimating a trial quotient is very real. One of the difficulties results from learning more than one method of deriving trial quotients. Several methods are in use, and a child is often "taught" several. In fact, textbooks do not agree on *the* method of estimating trial quotients. Commonly, however, two methods are used in estimating quotient figures: the apparent, or initial-digit, method and the increase-by-one method.

Although there are advantages and disadvantages in both methods and although some authorities advocate the use of one type and some another and some, such as Grossnickle,¹ advise using both methods, there is evidence to indicate that the initial-digit method is preferable.

Not only are there difficulties in estimating the quotient figure, but it is also apparent that there are difficulties in checking the accuracy of the quotient figure. Grossnickle suggests two methods for checking the validity of the estimated quotient figure. One method is described as follows:

The method for correcting the quotient figure when the guide figure of the divisor has place value is illustrated in the example $24 \overline{)1387}$. The pupil thinks, "How many 20's in 138?" Then he thinks, "There are six 20's in 138 and 18 remaining." Next he thinks, "Since six 4's are 24, a number greater than 18, the quotient figure must be one less than 6, or 5."²

¹ Foster E. Grossnickle, "How To Estimate the Quotient Figure in Long Division," *Elementary School Journal*, XXXII (December, 1931), 299-306.

² Foster E. Grossnickle, "How To Test the Accuracy of the Estimated Quotient Figure," *Elementary School Journal*, XXXII (February, 1932), 443.

This method presents difficulties for the early stages of learning long division. For instance, the beginner, it seems, would have difficulty "thinking" 20's in 138. For that reason the initial-digit method seems preferable. When the numerical value of the guide figure is used, in the same example $24 \overline{)1387}$, one would think, "How many 2's in 13? There are six 2's in 13 and 1 remaining, making the next number 18. Will 18 contain six 4's? Since six 4's are 24, a number larger than 18, the true quotient will be one less than 6, or 5." This method of checking has the advantages of being quick and of involving small numbers.

Zero difficulties.—Zero difficulties appear chiefly because the child fails to understand the place value of numbers. A terminal zero in the dividend often causes difficulty because the zero is disregarded. A terminal zero in the quotient is a frequent cause of disturbance, too, for a child will often omit the terminal zero, as in the example at the right.

A proper understanding of the place value of numbers would help to eliminate this difficulty, as it would also the third type of zero difficulty, an internal zero in the quotient. Very frequently children omit the internal zero, as in the example at the left.

Concepts of divisor and dividend relationships.—The concepts of the relations of the divisor and the dividend may be the source of difficulty. It is not enough for the child simply to manipulate figures; he must also understand the meaning of the process. He should be able, with help, to generalize the relations of divisor, dividend, and quotient, but, if he is not given help, he will probably have difficulty.

Checking the long-division process.—Checking the answer in long division presents difficulties. Although the child has learned to multiply efficiently, he frequently has difficulty in proving his long-division problems. This difficulty is at least partly due to the new positions of the multiplier, the multiplicand, and the product.

Remainders to be expressed as common fractions.—Remainders are likely to be a source of trouble. It is rather common for children to leave the remainder at the bottom of the long-division example. Since this practice is neither acceptable nor convenient (one must look in two places for the answer to a problem), the child should be taught to put the remainder in the quotient position. There are two

$$\begin{array}{r} 2 \\ 83 \overline{)1707} \\ \underline{166} \\ 47 \end{array}$$

$$\begin{array}{r} 16 \\ 43 \overline{)4559} \\ \underline{43} \\ 259 \end{array}$$

common ways of expressing remainders. In one method the figures in the remainder are placed after the quotient, with the accompanying notation "rem." This method has the disadvantage that it teaches the child to express the remainder as a "rem," while he will later have to learn the method, acceptable in grown-up society, of expressing the remainder as a common fraction. It would seem less confusing and more consistent to teach him from the start that the quotient figure tells how many of the divisor there are in the dividend. In the example at the right he would learn that there are 72 and $\frac{7}{4}$ 64's in 4615. Of course he should understand the meaning of common fractions. Later he may learn to manipulate common fractions and to reduce the remainder to lowest terms.

$$\begin{array}{r} 72\frac{7}{4} \\ 64 \overline{) 4615} \\ \underline{448} \\ 135 \\ \underline{128} \\ 7 \end{array}$$

Difficulties in correcting errors.—Correcting mistakes in long-division problems is one of the most serious difficulties met in the process. The usual method of scoring consists of a maximum of perhaps three marks: a check mark for "wrong," a "c" for "correct," and "c" with a number for the number of correct examples.

This method of scoring is simple for the teacher, and it makes possible the easy but abominable answer-book scoring. It is as difficult for the pupil as it is easy for the teacher. Getting back a paper with check marks all over it is of little help to a child. Even if he conscientiously tries to correct his mistakes, he meets with almost insurmountable difficulty, for a check may mean any or all of perhaps eight serious errors in long division. Any method which is understood by the child and which makes clear to him where and what his errors are, is desirable. The following set of marks is offered as a suggestion for a method of scoring which might reduce difficulties in correcting errors.

<i>z om</i>	Zero omitted	<i>p</i>	Error in placement
<i>w q</i>	Wrong quotient	<i>b d</i>	Error in number brought down
<i>w c</i>	Wrong carry	<i>r</i>	Error in remainder
<i>m</i>	Error in multiplication		
<i>s</i>	Error in subtraction		

Emotional disturbances.—The emotional element cannot be overlooked in analyzing difficulties involved in any learning experience. The development of the proper emotional attitude will do much to make long division easier, and, on the other hand, the growth of un-

desirable emotional attitudes will cause innumerable difficulties which no amount of emphasis on techniques of learning the subject will overcome. Long division should not be disliked, and it can be taught so that children will like it.

Perceptual difficulties.—Perceptual difficulties are too frequently overlooked as the source of long-division difficulties. The child who has perceptual difficulties is very likely to have difficulties in learning long division. The child who does not see well or who does not hear well presents difficulties which must be overcome before the teaching of long division can be effective.

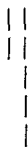
SUGGESTIONS FOR MAKING LONG DIVISION EASIER

To analyze the difficulties in long division is fairly simple; to teach the process in such a way as to make it easier for the pupils is much more difficult. Teachers could eliminate much confusion by controlling the long-division difficulties, by analyzing the difficulties, by teaching the elements involved in the examples just before the long-division examples are assigned, by developing concepts, by developing an understanding of relationships, and by projecting these into the lives of the children.

Although those of us who have been taught to "manipulate" long division may think the process artificial, nevertheless, upon examining it more thoughtfully, we realize that long division is really a natural concept and a logical process. Surprising as it may sound, the child has done long division many times before he enters Grade IV. If the teacher capitalizes on this experience, much can be done to make the process of long division easier and more meaningful for the child. Several basic concepts are necessary for the introduction of long division: (1) an understanding of the decimal system of notation and the place value of numbers; (2) a concept of division as a whole and of long division as a shortened process of subtraction; (3) the relations of divisor, dividend, and quotient; and (4) concepts of the processes involved in long division.

Developing concepts of the decimal system of notation.—An understanding of the place value of numbers is essential in the beginning of instruction in any problems in arithmetic. Nordahl makes the excellent suggestion that "maturation with the inherent and positional value of numbers may be developed through the child's dis-

covery of systems for counting used by early man."² She suggests working out this concept with pebbles or sticks. The child will soon see that one line may represent units, another tens, etc., that it is easier and quicker to utilize the place value of numbers. One child may be asked to count out twenty-five sticks, while the class keeps a count of the number of minutes required for the task. Then another child may be asked to do the same thing in a shorter time, until someone discovers the method of placing the sticks thus to express the number:



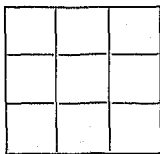
(Two 10's and five 1's)

Each child should have the experience of showing numbers by utilizing the positional values of numbers through the use of tiles, beans, or some similar objects.

A clever device for teaching the decimal system of notation and the place value of numbers is McBride's use of a "hyloplate," reported by Peter L. Spencer. The author's own description best explains his device.

Instead of talking about one unit, two 10's, and so forth, the teacher writes a number on the hyloplate, such as 333. This the pupils read. While the pupils read, the teacher points to each figure as 300, 30, 3. After several pupils have read thus, the teacher points to the 3 in the hundreds' place, asks what number it represents, and gets the answer "300." He then points to the 3 in tens' place and gets the answer "30"; and for the 3 in the units' place, "3." After drilling on several numbers in this way, a checker-board drill is used as follows:

On the hyloplate is arranged a square divided into smaller squares.



² Marguerite Nordahl, "A Study of Long Division," p. 115. Unpublished Master's thesis, Claremont Colleges, 1936.

The teacher then writes a 3 in the upper right-hand square and asks what number he has written. The answer will be "3." On the next line he writes a 3 in the column which represents tens and asks what number is on that line. If the previous drill has been thoroughly understood, the pupils will answer "30." If it has not, the teacher will have to lead the pupils to see that this is 30 by writing a zero after the 3 in the first column and then erasing it. After this demonstration, pupils go to the hyloplate and write numbers on the lines as dictated by the teacher, always writing only one figure. For example, on the first line the teacher has written a 3. This can be changed into 303 or 33 by writing another 3 in the proper column. Likewise, on the second line he has a 3 in the tens' column, making 30. This can be changed into 430 or 34 by writing a 4 in the proper column. After several drills similar to this, the idea of relative value depending on the position of the figure will be firmly established in the mind of the child without the necessity of confusing him with such terms as five units, six 10's, seven 100's, and so forth.¹

Concept of division as a whole.—The division concept can be developed naturally in the classroom. The teacher may hand a child a pile of ninety-nine papers and ask him to divide them equally among the forty-five class members. Probably the child will pass out the papers, first giving one to each child and then going back and giving each child a second paper and discovering that there are not enough to go around the third time. This procedure in itself is subtraction. The teacher or one of the pupils can tell the "story" on the black-board:

$$\begin{array}{r} 99 \text{ The number of papers.} \\ -45 \text{ Each person is given one. That takes 45 from the pile.} \\ \hline 54 \text{ - That leaves 54.} \end{array}$$

When we give each person a second paper, that takes away forty-five more,

$$\begin{array}{r} 54 \\ \text{and then we write } -45 \text{ or the whole story thus: } \\ \hline 9 \end{array} \qquad \begin{array}{r} 99 \\ -45 \\ \hline 54 \\ -45 \\ \hline 9 \end{array}$$

That leaves nine papers, and, if we are giving each person in the class an equal number of papers, we cannot divide the nine equally to give each person another sheet. We shall have the nine pieces left over.

Someone will probably suggest that the nine pieces of paper might be torn into forty-five equal pieces. If this suggestion is made,

¹ Quoted in Peter L. Spencer, "Teaching the Meaning of Decimal Expressions," *Philippine Public Schools*, III (October, 1930), 313-18.

the teacher should say that that could be done, and the "story" would be written: $\frac{9}{45}$ (9 pieces of paper cut into 45 equal parts).

By careful direction the teacher can lead the children to see that this process of subtracting can be shortened, that each person can be given two pieces of paper to start with and that then 90 can be subtracted from 99. Then the teacher may describe another way of telling this story—by dividing. She should explain that in division the minuend takes a different position:

The number of things to be divided is written down, then to the left is written the number of people among whom the things are to be divided equally, thus 45 99. Then we show that 99 is to be divided into 45 equal parts by this kind of mark $\overline{)}$ and write the problem $45\overline{)99}$. Or the process can be shown thus: $99 \div 45$, or $\frac{99}{45}$. These marks might be thought of as the "knives" of division.

We then ask, "How many 40's are there in 90?" There are two 40's in 90, so we put 2 over the right-hand position of the 90, thus: $45\overline{)99}^2$, and then we say

two 45's subtracted from 99, thus: $45\overline{)99}^2$ with 9 remaining.
 $\frac{90}{9}$

Children readily see that this process is a much more efficient method of subtracting.

Facility with the language of division and the concepts of relationships of divisor, dividend, and quotient.—Soon after the introduction of the division concept, the children should learn the names of the parts of the division problems and develop basic concepts regarding their relationships. It will facilitate teaching if the children can refer to the divisor, the dividend, and the quotient with understanding. Perhaps a diagram or a dramatization will help to establish these word forms and their meanings. A play might be made up, in which the "Dividend Family" of cookies living in the "Long Division Jar" are eaten by the two "Divisor Boys," who both eat equal numbers of cookies. The number that they eat is told by "Old Mr. Quotient," a queer old character who lives upstairs.

As soon as the child has facility with the terms "divisor," "dividend," and "quotient," he should begin to sense the relations among them. Using the paper situation or the illustration of the cookie

jar, the teacher can develop specific examples of these relationships so that the child will be able to make his own generalizations, at least with a little assistance. The teacher may say:

There are two Divisor Boys among whom to divide equally six Dividend cookies. Each will get three, and we can tell our story thus: $2\overline{)6}^3$.

Suppose, though, there were three Divisor Boys to eat the six cookies. Then how many would each boy get if the three boys got equal numbers of cookies? We can tell our story this way: $3\overline{)6}^2$.

Suppose two of the Divisor Boys brought a friend, so that there were five children among whom to divide six cookies equally. Then how many would each child get if they all got equal numbers of cookies? Only one, and there

would be one left over: $5\overline{)6}^1$
 $\frac{5}{1}$

Some pupil may say, "But we could divide the one cookie into five equal parts." The teacher may say that we could and that we tell that part of the story in this way: $\frac{1}{5}$ (one cookie divided into five equal parts), but the teacher should also add the noun meaning of fractional expressions by explaining that each of the boys would then get one cookie and one-fifth of another.

It is well in developing these concepts to let the children have the experience, at least a few times, of actually "doing" the dividing with objects. Along with the fractional concepts developed here, the teacher may develop an understanding of common fractions as they function in music (half, quarter, eighth, and whole notes).

Then the teacher might add another chapter to the story, saying: "Suppose the boys' friend across the street came over, and then there were six boys to eat the cookies. How many cookies could each boy have if each boy has the same number of cookies?" The children will probably say that each boy will get one, and the teacher will write the "story" with the others: $6\overline{)6}^1$.

The children might then have the experience of "reading" the stories which have been written: $2\overline{)6}^3$, $3\overline{)6}^2$, $5\overline{)6}^1\frac{1}{5}$, $6\overline{)6}^1$. As they "read" these number stories, they can easily be led to see that, if there are

the same number of cookies to be divided and more boys among whom to divide them equally, each boy will get fewer and the generalization may be made that, if the dividend remains the same and the divisor becomes larger, the quotient will become smaller. At this time a shorter way of writing this story might be introduced:

If we call the dividend Di and the divisor d and the quotient Q , how can we write the story? We might write it thus to tell the first story: $\frac{Q}{d)Di}$. We might translate this shorthand by saying, "*Dividend* divided by *divisor* gives the *quotient*." If Di remains the same and d becomes larger, Q will become smaller.

By similar procedure the concepts of the other divisor, dividend, and quotient relationships should be developed so that the child understands these relationships:

If the dividend remains the same and the divisor becomes smaller, the quotient will become larger.

The size of the quotient depends inversely upon the size of the divisor, if the dividend remains the same.

The size of the quotient depends directly on the size of the dividend, if the divisor remains the same.

Probably, too, such relationships should be expressed in a shortened form (algebra). The developing of such concepts should be regarded as "reading" and as problem-solving. Of course such concepts are developed not simultaneously but gradually. They should not be the lesson for one day but should be *behind*, and should be the development of, the lesson every day.

After such concepts are developed with small numbers, the same thing may be done with large two-figure divisors.

Concepts basic to the processes involved in long division.—Not only should the child understand the meaning of long division, but he should also understand the processes which he uses in computing long-division examples. He should see that multiplication is a special form of addition, and he should understand its relation in the long-division setting. He should see the breaking-down of the multiplication process, as in the example at the right. He should also see that, when the number of boys (divisor) is multiplied by the number of cookies each one eats (quotient) and the number left over (remainder) is added, the result is the number of cookies with which he started

$$\begin{array}{r}
 264 \\
 \times 85 \\
 \hline
 1320 \\
 2112 \\
 \hline
 22440
 \end{array}$$

(dividend). This fact, too, can be expressed in algebraic form: $Q \times d + r = Di$; $Qd + r = Di$.

He should see, too, that short division is a short cut to long division by carrying, as carrying is a short cut to long multiplication.

When such basic concepts have been developed, the teacher is justified in working on some of the manipulative skills in long division. However, in all the number work involved in long division, these concepts should be constantly drawn out, reinforced, refined, and applied. Nevertheless, there are some aspects of long division in which facility with numbers and with techniques makes the process vastly easier. These techniques should in no way crowd out the meanings or the concepts involved in long division but should reinforce them.

In the process of teaching long division, the most important point of all is teaching the concepts. These reinforce and help to teach the number aspects of the problems. In long division, as in other phases of arithmetic, the development of meanings is fundamental. If meanings are developed, then meaningful manipulation of the process can be developed, but manipulation without meanings or concepts is not only undesirable but inexcusable. Teachers do not want to reduce children to automatons, and they will not if arithmetic is taught as a basic social study. By developing meanings, analyzing the difficulties, and teaching children to meet them, teachers can do much to make long division easier.

ELEMENTARY-SCHOOL HOUSING: AN APPRAISAL OF A WARTIME EXPEDIENT

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THE SITUATION

SCHOOL housing is a severe problem in expanding defense centers, and a temporary solution developed in one center has unexpectedly demonstrated such merit that the attention of educators might well be called to it as a possible area of experimentation in elementary-school planning. The development has occurred at San Diego, California, in connection with a large federal housing project. In one great undertaking on Linda Vista mesa the Federal Works Agency constructed three thousand homes for defense workers and their families, but schools had not been started when the project opened. On very short notice, temporary facilities had to be provided to house, for at least one year, eighteen hundred to two thousand elementary-school pupils and five hundred to seven hundred high-school pupils. Distance made it impossible to utilize existing school buildings elsewhere in the school district.

The solution was to allocate, around three centers, blocks of one-family, two-bedroom bungalows to be used as schoolrooms for the three schools established. In practice, this procedure has meant one bungalow to a teacher. Each elementary-school group has its own house, while in the high school the pupils move each period. Including the houses used for administrative, health, and library purposes, 120 bungalows are now allocated for school purposes at the Linda Vista project. The enlightened community-planning behind the project had provided play space in the center of the large blocks, as well as between the houses themselves.

It should be noted that the plan of using separate houses was developed as the only possible solution to the emergency. The school officials concerned, and the housing authorities as well, looked upon the solution as unpleasant and as a makeshift providing inferior fa-

cilities with little to recommend them. When the schools were opened in September, 1941, the loyalty of the teachers was appealed to, and they were asked to carry on despite the inconveniences and the inadequacies of the school plants. No one expected any striking advantages to emerge from the plan.

ADVANTAGES AND DISADVANTAGES

The hurly-burly of the opening of school had not subsided, however, when reports began to filter back to the principals' offices and to the central administrative staff to the effect that most of the elementary-school teachers were finding the housing quite satisfactory, while primary-grade and kindergarten teachers were positively enthusiastic about the arrangement. The reports persisted. First-grade teachers and kindergarten teachers reported that their pupils had made the most rapid and least painful adjustment to school that they had ever observed. A number of primary-grade teachers commented that there was no question in their minds of the superiority of the bungalow housing over standard first-grade schoolrooms. Difficulties were mentioned in the first reports, of course—such as inadequate storage space, lack of hooks for coats, lack of blackboards, and the like—but the general tenor of the comments from primary-grade teachers was exceedingly favorable. Attitudes of upper elementary-grade teachers were favorable but less strikingly so, while high-school teachers found relatively little good in the housing arrangement.

Obviously an investigation of the unexpected advantages and emerging disadvantages of the school-housing situation was needed. In order to avoid, in part at least, the aura of injudicious initial enthusiasm for a new experience, the writer decided to wait until mid-year and then to survey the faculties of the two elementary schools to obtain from them written statements of the advantages and the disadvantages growing out of the unusual housing provided at their schools. Replies were received from forty-six of a total of forty-eight kindergarten and elementary-school teachers whose classes were housed in family bungalows. A tabulation of replies, divided into kindergarten-primary and upper elementary grades, is given in Table 1. The data include both the advantages and the disadvantages which were reported.

As would be expected, the replies included in Table 1 reflect, in part, personal biases and viewpoints of individual teachers and, in part, a number of advantages and disadvantages growing out of the emergency situation but not at all inherent in the type of housing provided. Inadequate heating, poor lighting, lack of equipment, untrained janitorial service, and many similar disadvantages are very real at present, but these could readily be overcome. Likewise, kitchen equipment, adjacent toilets, and even offices for teachers could be provided in ordinary elementary-school buildings. When such items are ruled out, there remains a small residue of advantages and disadvantages which appear at present to be truly the outgrowth of the emergency arrangement whereby each class is placed in a small, detached house built as a residence, not as an ordinary schoolroom.

The "residual" advantages are:

1. The homelike school environment (in this case identical to children's homes), in contrast to the normal institutionalized school environment, seems to provide very important advantages for at least the younger children. Their adjustment to school seems to be easier, happier, and more rapid in this homelike situation.

2. The relative isolation of class groups, coupled with the homelike situation, seems to result in a more personalized school than does the normal situation. Classes and teachers are more on their own, class loyalty seems higher, and teacher-pupil relationships closer. Because loyalty is directed toward the smaller, more comprehensible group, the individual seems more important to himself, to his group, and to the teacher.¹

3. The existence of separate rooms, in which committees can meet, activities develop, reading groups gather, and various diverse undertakings occur simultaneously, seems to be a definite advantage for this type of situation.

4. There are certain other physical advantages—the absence

¹ Somewhat similar findings, though on another educational level, have been reported by Margaret Brown, "School in a Tent Village," Appendix C, pp. 230-31, *The Personal-social Development of Boys and Girls with Implications for Secondary Education* by Lois Hayden Meek (chairman) and Others. New York: Committee on Workshops, Progressive Education Association, 1940.

TABLE 1
ADVANTAGES AND DISADVANTAGES REPORTED FOR SMALL-HOME
SCHOOL HOUSING AT LINDA VISTA

ADVANTAGE OR DISADVANTAGE	FREQUENCY OF REPORT	
	Kindergarten and Grades I, II, and III (30 Teachers)	Grades V, and VI (16 Teachers)
Advantage:		
1. Homelike environment superior; makes for happier children and easier child adjustment to school.....	28	10
2. Separate rooms useful for committee and small-group activities.....	22	16
3. Kitchen equipment very useful (stove, sink, refrigerator)...	15	1
4. School situation more personalized, less like a "big impersonal institution".....	12	.....
5. Relative isolation of classes makes for improved group loyalty—a feeling of belonging on the part of all children...	11	4
6. Improved pupil concern for care of schoolroom and school grounds because it is "our little house".....	9	4
7. Less noise, fewer outside disturbances, more freedom for child and teacher because there is less danger of disturbing others.....	9	6
8. The immediately available "like-home" bathroom helpful to some children.....	9	2
9. More intimate teacher-child relationship makes for easier adjustment of problems.....	9	1
10. Each class has garden space adjacent to room.....	9	.....
11. Smaller rooms necessitate smaller class groups.....	7	4
12. Segregation of class groups reduces conflict between younger and older groups.....	7	.....
13. Increased pupil independence and responsibility because of relative independence of each class group.....	6	4
14. Ventilation and lighting easier.....	3	.....
15. Improved school safety, fewer injuries, ease of holding fire and air-raid drills, less congestion.....	.....	2
16. An office-room can be arranged for each teacher wanting one.....	.....	2
Disadvantage:		
1. Largest room in house (living-room) too small to accommodate easily the full class at one time.....	22	9
2. Heating inadequate.....	11	5
3. Insufficient cupboard and storage space.....	8	3
4. Lack of bulletin board and display space.....	7	2
5. Lack of blackboard space.....	6	3
6. Lighting inadequate on dark days.....	6	3
7. Two toilets needed.....	6	2
8. School too spread out, too far from office to classroom...	6	1

TABLE 1—*Continued*

ADVANTAGE OR DISADVANTAGE	FREQUENCY OF REPORT	
	Kindergarten and Grades I, II, and III (30 Teachers)	Grades IV, V, and VI (16 Teachers)
<i>Disadvantage (continued):</i>		
9. Furniture inadequate.....	5	4
10. Play space too limited for large group games (indoor, etc.)..	5	2
11. Inadequate janitorial service.....	3	.....
12. Indoor space inadequate for rhythms.....	3	.....
13. No auditorium.....	3	3
14. Impossible to see all the children of a class at all times...	2	2
15. No drinking fountains.....	2	1
16. Less sharing between classes because of isolation of houses	2	1
17. Playground too hilly, needs leveling.....	2	1
18. Front steps too high for primary-grade children.....	2	.....
19. No individual lockers for children.....	2	.....
20. Children tend to play only with own group, not with other classes.....	1	2
21. Doors and halls too narrow.....	1	1
22. Lack of playground apparatus.....	1	.....
23. Inadequate arrangements for wraps and lunches.....	1	.....
24. Discipline harder because children scattered more.....	.....	1
25. Group interest harder to maintain because children usually distributed between rooms.....	.....	2
26. Lack of a cafeteria.....	.....	1
27. Class discussion difficult because of room size.....	.....	1
28. Less loyalty to school as a whole.....	.....	1

of congestion and of outside noise and disturbances, the absence of crowded halls, and the greater degree of safety.

The "residual" disadvantages are:

1. From the administrative standpoint there is no question that an entire school housed in small homes is a spread-out, scattered institution. This is a disadvantage for the adults, though probably not for children.¹

2. The unity developed within classes seems to act against the extensive sharing of experiences among classes and the mixing of children from various classes on the playground. In the upper grades there seems to be a loss of desirable loyalty to the school as a whole.

¹ Richard J. Neutra, "New Elementary Schools for America," *Progressive Education*, XV (April, 1938), 324-31.

3. There seems to be no question that the use of several rooms simultaneously by a class group makes certain types of control and discipline harder than when the group lives in only one room.

CONCLUSIONS AND RECOMMENDATIONS

The writer does not know how to weight the advantages and disadvantages scientifically. However, in his opinion, there is little question that the advantages outweigh the disadvantages insofar as kindergarten and first-grade classes are concerned. It seems even probable that the same would be found true for second- and third-grade groups. The conclusion regarding the beginners, at any rate, seems consistent with our present understanding of the gradualness of child development, the immediacy of interests and loyalties during early childhood, and the need for very close teacher-pupil relationships.

The present report suffers from lack of objectivity, and only time can tell whether the findings are truly reliable. However, they are probably indicative and may be taken as suggestive of the need for further, more leisurely, and more scientific investigation.

On such a limited basis, then, the writer would like to propose to expanding school systems that they experiment with the construction and the use of detached bungalows, as much as possible like the pupils' own homes, for the kindergarten and first-grade groups. Each bungalow would need a small yard for itself, and it should have one large "living" room, one or two smaller "activity" rooms, dual toilet facilities, a kitchen, adequate storage space, blackboard space, bulletin boards, etc. Heating, lighting, ventilation, size of steps, width of doors and halls—these and other details would have to be adjusted to the purpose of the bungalow. Of necessity, in many details the bungalow would be different from a real home, but it does seem probable that the closer the physical environment of kindergarten and first grade can simulate the home environment of the pupils, the greater the advantages will be for the pupils concerned.

A CO-OPERATIVE TRAINING PROGRAM

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A MAJORITY of teacher-training institutions have their own training schools, laboratory schools, or practice schools in which to provide practical training and experience to college students who intend to teach. There are, however, many teacher-training schools, particularly among the privately owned and controlled institutions, that do not operate laboratory or training schools of their own, and such colleges are usually dependent on the public schools to provide the necessary opportunities for observation and practice teaching. Consequently numerous co-operative programs are conducted where college students do their observing and practice teaching in the public schools.

ADVANTAGES OF THE CO-OPERATIVE PROGRAM

There are various advantages for both the college and the public school in a co-operative teacher-training program. It is, perhaps, the mutual realization of these advantages which accounts for the apparent trend toward further utilization of the public schools for providing practice-teaching opportunities to college students.

Advantage to the classroom teacher.—Observations have definitely shown that a classroom teacher does a better job of preparing lessons, teaching classes, and maintaining proper classroom control when an observer or an assistant is present in the classroom. In addition to stimulating the teaching efforts, a student teacher can be, and frequently is, helpful in giving specific aid to the classroom or supervising teacher. Although the student teacher's time is, at first, usually spent in tacit observation, it is not long before assistance can be rendered in such tasks as checking materials, scoring tests, and tabulating data. After the student teacher becomes familiar with the class and the program of study, aid may be given in more re-

sponsible functions, such as preparing exercises and tests, supervising study, and teaching classes. The time during which the classroom teacher is released from the functions turned over to the student teacher can obviously be utilized profitably in numerous ways.

Advantage to the student teacher.—The main advantage that a student teacher receives from practice teaching in a public school is the opportunity to observe and teach in an environment which is typical of that which will be encountered when an actual teaching position is acquired. Many young teachers who receive their pre-service training in a laboratory school with selected pupils and special equipment find themselves unprepared to cope with problems that confront them in the typical classroom of the public schools.

Advantage to the public-school system.—A decided value of a co-operative teacher-training program to the public schools is that it provides an opportunity for teacher recruitment. Many student teachers display exceptional talent and potentialities during their service as practice teachers. Public-school administrators are missing an opportunity of engaging the best teaching talent of their communities when they fail to take cognizance of superior student teachers who do their practice teaching in the public schools. A well-planned system of reports from the classroom teacher concerning the student teacher's progress will reveal relative teaching potentialities.

Advantages to the college.—The opportunity for college students to do their practice teaching in public schools is not only an advantage; in many instances it is a necessity. Some colleges have neither the facilities nor the appropriations to operate a separate training school as part of the education department. Refusal of the public schools to grant practice-teaching opportunities would automatically eliminate that part of a student's training which is usually required for certification.

A well-recognized advantage of the co-operative program to the college is the fact that elementary- and high-school pupils are not necessarily moving about the college campus and buildings. It is frequently found objectionable to both the younger and the older students to have too wide an age range on the campus.

DISADVANTAGES OF THE CO-OPERATIVE PROGRAM

Obviously some disadvantages are inherent in the co-operative teacher-training plan. For example, a student teacher may have to arrange his schedule of college classes to conform to the periods designated as available for practice teaching in the public schools. Moreover, the student may be compelled to travel some distance to the public school where he does his practice teaching.

It is sometimes asserted that practice teaching in the public schools does not afford the opportunity to set up in the classroom laboratory exercises or situations which will synchronize with the teaching in the education courses. Public schools are primarily established and conducted for the benefit of the pupils; the focus of attention is on the pupil, not on the practice teacher. Therefore the benefits received by a student teacher from experiences in the public-school classroom must be derived from the program that has been primarily planned and conducted for the education of the children.

A possible disadvantage of the co-operative teacher-training program, from the viewpoint of the college instructor, may be that the college instructor is usually denied the privilege of planning, supervising, and appraising the activities of the student teacher. The dangers involved in granting such privileges to the college instructor, particularly in a city school system, are obvious. The student teacher should be exclusively under the supervision of the classroom teacher during practice-teaching periods. The classroom teacher who is not competent enough to plan, supervise, and appraise the activities of a student teacher is not adequately qualified to teach.

The fact that the student teacher, while doing his practice teaching, is not under the direct supervision of the college instructor is not necessarily a handicap. If the public-school officials and the college instructors plan the program co-operatively and harmoniously, it can be mutually beneficial to all parties concerned. Brief but concise regulations governing the program, a purposeful plan of conferences, and a thorough system of reporting can eliminate many of the objections that would otherwise exist in a co-operative teacher-training program.

REGULATIONS GOVERNING ONE PROGRAM

It is not likely that the regulations governing a co-operative program in a single city would be entirely applicable to other cities. Nevertheless, brief reference is made to the regulations, conferences, and reports for a program which is proving to be successful for two colleges and the public schools of Jackson, Mississippi. It is assumed that the principles inherent in the Jackson program might be appropriate, or at least suggestive, for other cities where college students do their practice teaching in the public schools.

Experiences have indicated that it is not desirable to have too many printed regulations; numerous detailed regulations prevent flexibility of the program. The regulations specify that the responsibility of the program rests with the superintendent, who, in turn, delegates to the director of elementary education and the director of secondary education the authority to administer the program. Therefore college authorities deal directly and exclusively with the directors of the public schools in all matters of the co-operative program.

The amount of the fee required of college students for the privilege to do practice teaching in the public schools is determined by the superintendent and the board of education. The disbursement of funds received from the colleges in consideration of the privilege is left to the discretion of the directors of education with the approval of the superintendent.

Only college Seniors are granted the privilege of observation and practice teaching in the Jackson public schools. Moreover, the college authorities must present, on the students' behalf, transcripts of college credits which signify minimum academic accomplishments. Their qualifications are verified by the directors of education before practice-teaching assignments are made. The college authorities specify the subject or the grade level in which the prospective student teacher is interested. The assignment to a specific school and teacher is then made by the appropriate director of education, and the principal of the school is advised accordingly.

The regulations do not specify the activities that must be performed by the student teacher other than a minimum amount of ob-

servation before actual practice teaching begins. Such matters are usually determined on the basis of individual cases and through conferences held for such purposes.

PROGRAM OF CONFERENCES

The director of elementary education and the director of secondary education meet with the college officials responsible for teacher training near the beginning and the end of each school year. The purposes of these meetings are to appraise the co-operative program and to decide on necessary modifications. The reports submitted by the classroom teachers provide problems for consideration at the conferences.

An important conference, which eliminates many problems that would otherwise develop, is held during the week prior to the practice-teaching period. The conference is attended by the directors of education, the principals, and the teachers to whom student teachers have been assigned. The college officials responsible for teacher training in their respective colleges are also invited to attend this conference. The purposes of the co-operative program and the regulations governing it are thoroughly reviewed. Teachers or others who are not familiar or satisfied with all the phases of the program are permitted to raise questions. The manner in which the reports are to be made and submitted is stressed at the conference.

The various individual and group conferences between college instructors and student teachers are of no particular concern to the public-school authorities. The directors of education are concerned about conferences between classroom and student teachers, and they suggest that the classroom teacher arrange for weekly conferences with the student teacher at periods which are mutually satisfactory.

REPORTS OF ACTIVITIES AND PROGRESS

An important phase of the co-operative teacher-training program is the reporting by classroom teachers who supervise the student teachers. It is by means of the periodic reports that college officials are informed of the activities carried on by the student teachers and of the effectiveness of their work.

The weekly report form is designed so that the classroom teacher

may check the activities engaged in during the week by the student teacher. Provisions are also made on the weekly report form for verbal statements about unsatisfactory attitude and work or about superior capabilities and achievement. The list of activities appearing on the form includes such items as the following: observing; taking attendance; checking workbooks; preparing, administering, and scoring tests; teaching; and so on.

The semester report form has been designed so that classroom teachers may rate student teachers on the factors which college instructors and public-school officials consider to be most significant. The following factors are listed on the form: punctuality, dependability, thoroughness, initiative, attitude toward the teacher, attitude toward the pupils, professional attitude, mastery of subject, control of class, and promise of success. Five columns are provided in which each factor may be rated "Very low," "Low," "Medium," "High," or "Very high." Descriptive statements of the factors to be rated, with additional space for verbal comments supplementing the ratings, add to the value of the report.

An analysis of the semester reports submitted during the one year that they have been employed indicates that they have provided college authorities with the information which they desire for appraising the practice-teaching phase of the college course. Since the semester report is made out in duplicate, one copy is retained for the central office of the public schools. This report is viewed as a significant aspect of the credentials of candidates who apply for teaching positions in the Jackson public schools.

EARLY ACHIEVEMENT IN READING

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THIS article reports the results of tests of early reading abilities and analyzes the results in order to indicate those abilities which seem to be the more important in guiding the progress of young children in learning to read. One test of early abilities was the Gates Reading Readiness Tests. The other was the Wilson-Flemming Symbols Scales. The Metropolitan Achievement Tests in Reading, Primary Reading Test, was also used, in full with some of the groups and in part with others.

Two schools participated. One was the Hunter College Elementary School, in which a group of kindergarten children was given the Symbols Scales in the spring of 1939. The next autumn the same children, then pupils in low-first grade, were given the Gates Reading Readiness Tests, and in December and January two forms of the Metropolitan test. The socio-economic status of the children of this school was much above average. The other school was a New York City public school located in an underprivileged section of the city. Twenty-three pupils in low-first grade and twenty in high-first grade were given the Gates Reading Readiness Tests in the autumn of 1940, and during the following winter the first four parts of the Metropolitan Achievement Tests in Reading, Primary Reading Test. Twenty-three children in the two grades of this school were also given the Symbols Scales.

Correlations of scores to show the relations between the reading tests and the other measures were computed by use of the rank-order formula. The small number of cases makes the reliability of the statistical results somewhat uncertain. However, because of other reported data referred to below, the outcome of this study has comparative interest.

Table 1 shows the coefficients of correlation between reading achievement and the total scores on both the Gates test and the Symbols Scales. All the coefficients are fairly high, averaging .57 and .67, respectively. The Symbols Scales, apparently, had a somewhat closer relation to reading ability, as measured by the Metropolitan test, than had the Gates tests. The similarity of these figures to those shown in other studies previously reported is rather close. Gates (1) reported about the same degrees of relationship between

TABLE 1
CORRELATIONS OF SCORES ON METROPOLITAN
ACHIEVEMENT TESTS IN READING WITH TO-
TAL SCORES ON GATES READING READINESS
TESTS AND ON WILSON-FLEMMING SYMBOLS
SCALES

GROUP	CORRELATION WITH—	
	Gates Test	Wilson-Flem- ming Scales
Hunter College Element- ary School:		
December test. ....	.43	.59
January test. ....	.52	.62
Public school:		
Low-first grade. ....	.58	{ .80
High-first grade. ....	.76	
Average correlation..	.57	.67

his readiness tests and measures of reading ability. The writer and Flemming (6, 7) found coefficients ranging around .60 during a study of early progress in reading extending over a period of six years in the Horace Mann School of Teachers College, Columbia University. For example, 178 coefficients ran from .53 to .75. When these 178 were averaged by grade levels, there were eleven averages, nine of which were above .60.

Further analysis of the Gates Reading Readiness Tests has been made by correlating the various subtests of the Gates tests with the reading tests, intelligence quotients, and scores on the Symbols Scales. These coefficients are given in Table 2. Three of the sub-

tests show fairly high correlations with reading. These are the Letters and Numbers Test, which produced a correlation with the reading test of .70 in the one group tested by that subtest; the Word-Card Matching Test, which gave an average of .65 for three correlations; and the Word Matching Test, which gave an average of .56. Studies have indicated that word-matching tests are, for young children, basically tests of letter-perception abilities (4, 6).

TABLE 2

CORRELATION OF SUBTESTS OF GATES READING READINESS TESTS WITH
READING ACHIEVEMENT, INTELLIGENCE QUOTIENT, AND
WILSON-FLEMMING SYMBOLS SCALES

TEST	READING ACHIEVE- MENT IN HUNTER COLLEGE ELEMEN- TARY SCHOOL (20)*	READING ACHIEVEMENT IN PUBLIC SCHOOL			INTELLI- GENCE QUOTIENT	WILSON- FLEMMING SCALES
		Low-First Grade	High-First Grade	Average		
		(23)	(20)	(63)	(32)	(25)
Picture Directions..	.23	.32	.37	.31	.48	.46
Word Matching....	.46	.49	.73	.56	.38	.36
Word-Card Match- ing.....	.60	.72	.63	.65	.46	.67
Rhyming.....	.00	.05	.78	.28	.13	.01
Letters and Numbers	.70	.....	.....	.....	.62	.82
Average score..	.43	.58	.76	.58	.57	.69

* The numbers in parentheses indicate the number of pupils represented.

The other two subtests of the Gates battery gave low average correlations. The average for the Picture Directions Test was .31, and for the Rhyming Test, .28. Such low coefficients indicate little, if any, relation with reading ability as measured in the groups tested. The unpredictable nature of rhyming was shown in the studies at Horace Mann School (3).

The last two columns of Table 2 show the relations between the readiness tests and the intelligence quotients and scores on the Symbols Scales. The correlations of the average scores of the readiness tests with both the intelligence quotient and the Symbols Scales are

fairly high. Some explanation for these relationships seems evident in the correlations shown for the subtests. One coefficient, that for the Gates Letters and Numbers Test and the Symbols Scales score, is high (.82). As a matter of fact, the two measures are much the same in that both require pupils to read letters and numbers. The Word-Card Matching Test likewise shows a fairly high correlation with the Symbols Scales. There is also a fairly high correlation (.62) between the Letters and Numbers Test and intelligence quotient. The remaining coefficients are not large and indicate only moderate relationships, if any, between the abilities concerned. It may be concluded, therefore, that the fairly high relation shown to exist between the average of the Gates Reading Readiness Tests and the Wilson-Flemming Symbols Scales seems to be due largely to the two subtests of the readiness tests, the Letters and Numbers and Word-Card Matching tests.

Comparison of the correlations of the Gates tests and the reading tests for the three groups studied shows a marked variation, especially for the pupils in high-first grade. The small number of cases in each of the groups makes any painstaking analysis impossible, of course, but inspection shows that the Rhyming Test gave, for that group alone, a very high correlation with reading. The Word Matching Test also shows for that same group marked, though not so extreme, variation from the relationships found for the other two groups.

The intercorrelations of the average reading-readiness scores and those for the subtests are: for the Word Matching Test, .83; for the Word-Card Matching Test, .75; for the Letters and Numbers Test, .75; for the Picture Directions Test, .51; and for the Rhyming Test, .33. It is seen that the first three of these correlations are fairly high, while the picture and the rhyming subtests gave coefficients which, as intercorrelations, are low. If the matching tests are, as it is believed, essentially letter tests, then it is evident that the three letter-ability subtests of the battery are those which produce the substantial relations found with reading ability. If the picture and the rhyming tests were eliminated from the Gates tests, the rest of the subtests would perhaps give more consistent and reliable correlations with standardized tests of reading achievement.

The reliability of the substantial correlations found between letter abilities and reading achievement has been indicated by another study (7) and was corroborated in this study by the relation shown between the reading tests and the Symbols Scales scores. As stated above, the Symbols Scales, in the case of the Hunter College Elementary School, were given in the spring and the reading tests in the following December and January. It may seem somewhat surprising that the close relationship found should appear when the tests were taken eight or nine months apart and the conditions were such as would tend to make the relation appear to be lower than it really was. One factor in the unfavorable conditions was that the administration of the Symbols Scales, which were given individually, was spread over a period of several weeks because the examiner, a student, could give only a few hours a week to the testing. This spread of time made it probable that the children last tested scored higher than they would have if all the children had been tested at the same time. Since the rank-order formula was used, this factor may have made some difference in the coefficients. However, other studies (7, 8) have shown the same tendency toward close relationship between letter and reading abilities measured after considerable intervals of time.

A further explanation of the closeness of these relationships may be made by logical analysis. The basic symbols for printed material are letters, the arrangements of which present certain ideas. Successful reading of ideas depends on perceiving accurately the letters that form each word. Probably this perception is more or less that of seeing a pattern as a whole. Certainly, for good reading it is not seeing letters in sequence, or individually. Nevertheless, accurate perception is fundamental and depends on perceiving every important letter in words, although the completeness of such perception probably varies considerably, depending on the care taken in reading. For example, in rapid easy reading, perception of the letters in the stimulus words is probably less clear than in slow reading of difficult material.

A lack of understanding of this perceptive process, or an unwillingness to recognize it, seems to dominate the thinking about the psychology of the reading process on the part of many primary-

school teachers and specialists in reading. This fact may be due chiefly to the methodology of recent times, which interprets young children's perceptions of reading matter as "configurational" or "contextual." No research has yet clearly shown that words are characteristically perceived to be wholes by children who are beginning to read words or that best or even satisfactory progress is made by having children thus try to treat words. There has been convincing evidence that to have children deliberately break words up into sequences of letters or groups of letters, as a method of learning to read words, is wasteful and develops poor reading skill. It is going to the other extreme, however, to argue that we should teach beginning reading by giving no attention at all to letters or syllables. Evidence that children do attend to letters as keys to reading words has been presented elsewhere (5). As a matter of fact, methods making use of such interests are traditionally used abroad, where reading skill is commonly reported as being highly developed among primary-school pupils.

A final criticism of the thinking implicit in the term "reading readiness" is offered. The term suggests discarded aspects of the theory of transfer. Children are "ready to read," it is intimated, not only because they may be interested, but because in some mystical way powers that have developed are "ready" to turn their efficacy to interpreting groups of letters which make up words and sentences. Thus abilities to see details of pictures, to carry out complicated directions, to recognize rhymes, to remember sentences, or to do other acts unrelated to the real reading process either are now to be turned to this new performance or are signs of other powers which will produce reading skill. This point of view apparently disregards the fact that reading ability demands ability to perceive the symbols making up the words and that the early stages of this mastery (represented, for example, in learning the forms and the names of the letters in situations where reading progress is under way, such as "reading" an alphabet book or putting names on pictures, and the like) are some of the simpler beginnings of the reading process itself and not a vague "readiness" of powers to be transformed to new skills.

It is suggested that the terminology is subtly and extensively unfortunate. "Early stage of reading" would seem a better expression

than "reading readiness" (9). The use of the former phrase by kindergarten and primary-grade teachers would do much to guide the development of abilities to handle printed symbols *functionally* in the beginning steps in learning to read (2, 7, 8, 9).

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3. WILSON, FRANK T., BURKE, AGNES, and FLEMMING, CECILE WHITE. "Reading Progress in Kindergarten and Primary Grades in the Horace Mann School." Typewritten manuscript, Russell Hall Library, Teachers College, Columbia University.
4. WILSON, FRANK T., and FLEMMING, CECILE WHITE. "Correlations of Reading Progress with Other Abilities and Traits in Grade I," *Pedagogical Seminary and Journal of Genetic Psychology*, LIII (September, 1938), 33-52.
5. WILSON, FRANK T., and FLEMMING, CECILE WHITE. "Letter Consciousness of Beginners in Reading," *Pedagogical Seminary and Journal of Genetic Psychology*, LIII (December, 1938), 273-85.
6. WILSON, FRANK T., and FLEMMING, CECILE WHITE. "Grade Trends in Reading Progress in Kindergarten and Primary Grades," *Journal of Educational Psychology*, XXXI (January, 1940), 1-13.
7. WILSON, FRANK T., and FLEMMING, CECILE WHITE. "Symbols Scales for Use in Beginning Reading," *Journal of Psychology*, VIII (1939), 99-114.
8. WILSON, FRANK T.; FLEMMING, CECILE WHITE; BURKE, AGNES; and GARRISON, CHARLOTTE. "Reading Progress in Kindergarten and Primary Grades," *Elementary School Journal*, XXXVIII (February, 1938), 442-49.
9. WILSON, FRANK T., and SARTORIUS, INA C. "Early Progress in Reading: Not Reading Readiness," *Teachers College Record*, XL (May, 1939), 685-94.

COMPARISON OF SCORES ON THE REVISED EDITION AND THE OLDER EDITION OF THE STANFORD ACHIEVEMENT TEST

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A REVISED edition of the Stanford Achievement Test was published in 1940. This new edition has completely replaced the five forms of the older edition, which was known as the New Stanford Achievement Test. The many schools that have been employing this widely used achievement test need information on the agreement in the educational ages and the grade equivalents obtained with the two editions and on the correlation between the scores provided by the two editions. This article summarizes some information of this kind available at the Educational Records Bureau.¹

Forms W, X, Y, and Z of the older edition of the test were used during the period 1937-40 in the fall testing program of the independent-school members of the Educational Records Bureau. Form D of the revised edition was employed in the 1941 program. In Table i the grade equivalents of the composite independent-school medians of the total scores on Forms W, X, Y, and Z are compared with the grade equivalents of the independent-school medians of the total scores on Form D.

Assuming that scholastic aptitude in the independent schools remained constant during the five-year period, one may conclude that there is little difference between the grade placements yielded by the older and the revised editions of the Stanford Achievement Test. In Grades V, VI, VII, and VIII the median grade equivalents yielded by the revised edition are slightly lower than those based on the

¹ For more detailed information see Arthur E. Traxler, "A Study of the Revised Edition of the Stanford Achievement Test," *1941 Fall Testing Program in Independent Schools and Supplementary Studies*, pp. 51-57. Educational Records Bulletin No. 35. New York: Educational Records Bureau, 1942.

older edition, while in Grades III and IV there are no differences between the medians. This finding is reassuring. It means that, as far as total scores are concerned, schools which have been using the New Stanford Achievement Test and keeping cumulative records of the results in terms of grade placements may carry on with the revised Stanford Achievement Test without finding the curve of growth greatly disturbed.

In the case of certain parts of the test, the medians are not so close together. The differences are particularly noteworthy for the

TABLE 1
GRADE AND AGE EQUIVALENTS OF INDEPENDENT-SCHOOL MEDI-
ANS OF TOTAL SCORES ON OLDER AND REVISED EDITIONS
OF STANFORD ACHIEVEMENT TEST

GRADE	MEDIAN GRADE			MEDIAN AGE (IN YEARS AND MONTHS)		
	Old Edition	Revised Edition	Differ- ence	Old Edition	Revised Edition	Differ- ence
VIII.....	9.7	9.6	0.1	15-8	14-7	1-1
VII.....	8.6	8.4	.2	14-7	13-4	1-3
VI.....	7.4	7.2	.2	13-1	12-2	0-11
V.....	6.0	5.9	.1	11-10	10-11	0-11
IV.....	4.9	4.9	.0	10-10	9-10	1-0
III.....	3.4	3.4	0.0	9-3	8-4	0-11

tests on Arithmetic Reasoning and Arithmetic Computation, where the median grade equivalents based on the revised edition run several months lower than those derived from the older edition.

Table 1 also shows the age equivalents of the independent-school medians of the total scores on the older and the revised editions of the test. The differences in the educational ages yielded by the two editions are far larger than the differences in the grade equivalents. In fact, the medians of the educational ages found with the revised edition are approximately one full year lower than those obtained with the older edition. In the case of certain parts, a few of the differences exceed two years.

The difference between the educational ages is due to a difference in the procedure of standardizing the two editions. The older edi-

tion was standardized according to the customary procedure. Use was made of the scores of all the pupils at each grade level in the schools where the test was administered for purposes of obtaining norms. The norms for the revised edition, however, were based on the scores of only those pupils who were "at grade" for their age. For each grade was found the twelve-month range of chronological age in which the greatest number of pupils fell. This group was called the "modal-age group" for that particular grade, and the norms were based on the average scores of the modal-age groups.¹

This plan of deriving the norms obviously eliminated both the accelerated pupils and the retarded pupils. Since there are ordinarily many more retarded pupils than accelerated pupils, particularly in the upper grades, the modal-age group at each grade level was, on the average, considerably younger than the group which included all pupils regardless of age. The net result is that the educational ages corresponding to average scores on the revised test are significantly lower than those for the older edition.

As far as theory of test construction is concerned, the use of modal-age groups in determining the norms is an improvement over the usual procedure. Under the ordinary plan of finding age norms, the increase in educational age tends to be more than one year per grade, while, under the modal-age procedure, the increase is exactly one year per grade.

In order to interpret cumulative data involving the two editions, users of the test need to know not only the age and the grade relationships but also the correlation between the scores on the two editions. Correlations between the scores on the older and the newer forms, based on the scores of eighty-one pupils, are reported in Table 2.

The correlations of the scores on the various parts range from .533 for Language Usage to .913 for Spelling. The correlation for Spelling is high. In view of the fact that the tests were administered a year apart, the correlations for Paragraph Meaning, Word Meaning,

¹ Truman L. Kelley, Giles M. Ruch, and Lewis M. Terman, *Stanford Achievement Test: Directions for Administering*, p. 5. Yonkers-on-Hudson, New York: World Book Co., 1940.

Arithmetic Reasoning, Social Studies I, and Social Studies II may be regarded as fairly high. The correlations for Language Usage, Arithmetic Computation, Literature, and Elementary Science do not seem particularly high for different forms of the same test, although it must be kept in mind that the correlations tend to be less than the true relationship because of the time which elapsed between administrations. The correlation between Physiology-Hygiene and Elementary Science is probably as high as could be expected, for the field covered by the latter test is obviously broader than that covered by the former one.

TABLE 2

CORRELATIONS BETWEEN SCORES OF EIGHTY-ONE PUPILS IN GRADE V ON NEW STANFORD ACHIEVEMENT TEST, ADVANCED FORM Z, TAKEN IN FALL OF 1940 AND THEIR SCORES ON STANFORD ACHIEVEMENT TEST, INTERMEDIATE FORM D, TAKEN IN FALL OF 1941 WHEN THEY WERE IN GRADE VI

Test	Correlation	Test	Correlation
1. Paragraph Meaning . . .	.771 ± .030	6. Literature . . . . .	.652 ± .043
2. Word Meaning . . . . .	.829 ± .024	7. Social Studies I* . . . . .	.721 ± .036
3. Language Usage . . . . .	.533 ± .054	8. Social Studies II* . . . . .	.722 ± .036
4. Arithmetic Reasoning . . .	.722 ± .036	9. Elementary Science* . . . . .	.611 ± .047
5. Arithmetic Computation . . . . .	.661 ± .042	10. Spelling . . . . .	.913 ± .012
		Total average score . . . . .	.903 ± .012

* Social Studies I, Social Studies II, and Elementary Science were correlated with History and Civics, Geography, and Physiology and Hygiene, respectively.

The correlation between the total average scores on the two editions is satisfactorily high. It indicates that, as far as general achievement is concerned, the order in which pupils are ranked by the revised edition is similar to that resulting from the older edition. It appears, therefore, that the guidance uses of scores on the Stanford Achievement Test and percentiles recorded cumulatively should not be greatly disturbed by the change to a new edition.

SUMMARY

The data in this article indicate that there is little difference in the grade equivalents of the median total scores on the older and the revised editions of the Stanford Achievement Test. There is a dif-

ference of approximately one year in the age equivalents of the median total scores on the two editions. The lack of direct comparability between the educational ages derived from the two editions is apparently due to a difference in the standardization procedure.

The correlation between the total scores on the older and the total scores on the revised edition is high, and correlations for most of the parts are fairly high.

The revised edition of the Stanford Achievement Test seems, on the whole, to be a valuable instrument for the measurement of achievement in the elementary school. Teachers and counselors who are changing to the new edition should keep in mind that *the new procedure used in standardizing the revised edition causes the age equivalents of the scores to be, on the average, approximately one year lower than those obtained with the preceding edition.*

SELECTED REFERENCES ON KINDERGARTEN- PRIMARY EDUCATION

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THIS list of selected references in the field of kindergarten-primary education includes pertinent publications appearing during the period January 1, 1941, to January 1, 1942. Items are grouped under the following classifications: (1) general educational aspects; (2) curriculum, teaching procedures, and materials; and (3) investigations and experimental studies.

GENERAL EDUCATIONAL ASPECTS¹

152. BRUECKNER, LEO J. "Does Our Present Curriculum Fit the Needs of the Elementary School?" *National Elementary Principal*, XX (April, 1941), 162-74.

Discusses new needs created by our urban, mechanized society and indicates five related issues confronting the elementary school.

153. DAVIS, MARY DABNEY. "What Is the Federal Government Doing for Children?" *Childhood Education*, XVIII (November, 1941), 105-9.

Reports (1) source of the changing needs of children, (2) types and sources of government services designed to meet these needs, and (3) suggestions to teachers and administrators of means of co-operation and leadership in these new responsibilities.

154. GUILFOILE, ELIZABETH. "Reality in the Language Program," *Elementary School Journal*, XLII (September, 1941), 41-49.

Discusses "reality in the language program" under the following subtopics: (1) vitality of the total school program, (2) emphasis on language functions used in daily life, (3) recognition of children's needs and limitations, and (4) characteristics of child growth and development.

¹ See also Items 436 (*Family Living and Our Schools*), 443 (Anfinson), 451 (Lane), and 457 (Pulliam) in the list of selected references appearing in the September, 1941, number of the *Elementary School Journal*; Items 501 (Gaines), 509 (Leary), and 510 (McKee) in the October, 1941, number; Item 682 (Folsom and Others) in the November, 1941, number of the same journal; and Item 322 (Hollingshead), in the April, 1942, number of the *School Review*.

155. HEINEMAN, IRENE T. "How To Stimulate Co-operation," *Childhood Education*, XVIII (November, 1941), 115.
Makes six recommendations for promoting proper relations between groups of citizens and the schools.
156. HOCKETT, JOHN. "The Significance of Creative Expression," *California Journal of Elementary Education*, IX (February, 1941), 159-65.
States the belief that creative education is (1) basic in individual development, (2) necessary to the democratic way of life, and (3) prerequisite to the solution of problems of our times.
157. LIVINGSTONE, RICHARD. *Future in Education*. New York: Macmillan Co., 1941. Pp. x+128.
Proposes a system of education devised to meet, without exception, the needs of the masses. The author is president of Corpus Christi College, Oxford University.
158. MEAD, MARGARET. "Back of Adolescence Lies Early Childhood," *Childhood Education*, XVIII (October, 1941), 58-61.
Describes the way in which adolescent behavior patterns are set in early childhood and grow out of the surrounding culture.
159. "National Council of Childhood Education, Haddon Hall, Atlantic City, New Jersey, February 25, 1941: Reports Assembled by Association for Childhood Education." Washington: Association for Childhood Education, 1941. Pp. 32 (mimeographed).
Outlines the activities of forty-five organizations composing the National Council in the field of child welfare. Gives names of the organizations, addresses, many of the executive officers, publications, specific services, and extent of co-operation with national agencies and the national-defense program.
160. STODDARD, GEORGE D. "The Growth and Decline of Intelligence," *Educational Record*, XXII, Supplement No. 14 (January, 1941), 77-88.
Reaffirms evidence, statistical procedures, and conclusions of the Iowa studies that have been questioned by some psychologists. Discusses four questions raised during the controversy.
161. WARING, ETHEL BUSHNELL, and JOHNSON, MARGUERITE W. *Helping Children Learn*. Ithaca, New York: Cornell University Press, 1941. Pp. x+460.
Deals with topics such as children's relations with adults and other children, language, emotional and nervous behavior, play equipment, and personal habits and hygiene.
162. WULFING, GRETCHEN. "Learning Experiences Likely To Prove Developmental to Young Children," *California Journal of Elementary Education*, IX (February, 1941), 177-81.

Discusses learning experiences as conditioned by (1) physical growth, (2) areas of interests within children's experience, (3) social values, and (4) continuity in interpretations of environment.

CURRICULUM, TEACHING PROCEDURES, AND MATERIALS¹

163. ALTSTETTER, MABEL F. "Early American Magazines for Children," *Peabody Journal of Education*, XIX (November, 1941), 131-36.
Chronicles the history of early magazines for children, giving dates of first and last appearance and characterizing each publication as to content, leadership, and literary contributors.
164. ANDERSON, JOHN E. "Principles of Growth and Maturity in Language," *Elementary English Review*, XVIII (November, 1941), 250-54, 277.
Analyzes the discrepancy in acquisition of spoken and written language and offers seven principles to promote development of language facility.
165. BIBER, MARGARET. "The Five to Eights and How They Grow," *Childhood Education*, XVIII (October, 1941), 67-74.
Analyzes outstanding trends of this age period and shows how the social culture is reflected in the child's values and goals.
166. BREWTON, JOHN E. "An Analytical and Critical Bibliography of Anthologies of Poetry for Children," *Peabody Journal of Education*, XIX (November, 1941), 114-23.
Comments critically on twenty-four anthologies of verse for children.
167. CUNDIFF, RUBY ETHEL. "'Penny Plain Tuppence Colored,'" *Peabody Journal of Education*, XIX (November, 1941), 136-41.
Traces the development of illustrated books for children from John Amos Comenius' *Orbis Pictus* (1657) to the present day.
168. DOLCH, EDWARD WILLIAM. *Teaching Primary Reading*. Champaign, Illinois: Garrard Press, 1941. Pp. 308.
Analyzes various teaching techniques as they affect the child, discusses phases of readiness, and interprets scientific findings in terms of contributions to the reading program.
169. DRISCOLL, GERTRUDE. *How To Study the Behavior of Children*. Practical Suggestions for Teaching, No. 2. New York: Teachers College, Columbia University, 1941. Pp. viii+84.
Points out opportunities for, and methods of, studying child behavior in the following areas: skill subjects, social contacts, aesthetic and creative expression, and playground and out-of-school activities.

¹ See also Items 533 (Harrison) and 574 (Gregg) in the list of selected references appearing in the October, 1941, number of the *Elementary School Journal*, and Items 609 (*Arithmetic in General Education*), 616 (Deans), 620 (*Studies in Arithmetic*), and 635 (Parker) in the November, 1941, number of the same journal.

170. GANS, ROMA. *Guiding Children's Reading through Experiences*. Practical Suggestions for Teaching, No. 3. New York: Teachers College, Columbia University, 1941. Pp. x+86.
Gives practical suggestions for guiding reading readiness, increasing word recognition and depth of comprehension, and evaluating progress.
171. GREENMAN, GLADYS (compiler). *Independent Work Periods*. Bulletin of the Association for Childhood Education. Washington: Association for Childhood Education, 1941. Pp. 36.
Describes various procedures, adapted to differentiated groups of children, that are designed to help "them grow from dependence to dependability."
172. GUTTERY, JEAN. "Style in Children's Literature," *Elementary English Review*, XVIII (October, 1941), 208-12, 240.
Illustrates desirable elements in style as found in recent literature for children. The report, made by a member of the research staff of a publishing company, includes a bibliography of twenty-four titles.
173. HILDRETH, GERTRUDE (compiler). *Readiness for Learning*. Bulletin of the Association for Childhood Education. Washington: Association for Childhood Education, 1941. Pp. 36.
Presents the significance of "readiness for learning" through a series of discussions: Paul Witty interprets developmental conditions; Arthur I. Gates, beginning reading; Leo J. Brueckner, arithmetic; Sara Stinchfield Hawk, language maturity; Satis N. Coleman, music skills; Madeline Flint Hosmer and Ellen C. Nystrom, writing; and Ethel Kawin, parent education.
174. KARP, MARK, and ABRAMS, DOROTHY A. "Keeping Up with Children's Literature," *Elementary English Review*, XVIII (May, 1941), 172-74, 189.
Presents data regarding sources of contemporary children's literature and lists Newbery and Caldecott awards.
175. MILLIGAN, JOHN P. "Learning about Punctuation in the Primary Grades," *Elementary English Review*, XVIII (March, 1941), 96-98.
Appraises the technique used and the results obtained in teaching punctuation and capitalization to pupils in Grades I and II.
176. SAUCIER, EARL NOLAND. "Some Significant Firsts in Children's Literature," *Peabody Journal of Education*, XIX (November, 1941), 141-47.
Surveys the historical development of children's literature and discusses outstanding books and pioneer writers in the field.
177. *Selected List of Ten- and Fifteen-Cent Books*. Bulletin of the Association for Childhood Education. Washington: Association for Childhood Education, 1941 (revised). Pp. 16.
The Literature Committee of the Association for Childhood Education presents an annotated guide to books of recognized worth.

178. TABA, HILDA. "Current Evaluation Techniques," *Childhood Education*, XVIII (September, 1941), 14-20.
Surveys current practices and describes newer procedures illustrative of present trends.
179. WULFING, GRETCHEN. "Reading in Relation to the Social Living Program," *California Journal of Elementary Education*, X (August, 1941), 29-40.
Recognizes the need for teachers of young children to be familiar with the general pattern of language development as reported in recent research in order that they may provide appropriate learning experiences for growth in language arts.

INVESTIGATIONS AND EXPERIMENTAL STUDIES¹

180. ANDERSON, HAROLD H. "Measuring Democratic and Undemocratic Behavior," *Childhood Education*, XVII (April, 1941), 350-53.
Reports the methods and the findings of a research program carried on in three kindergartens for the measurement of psychological differences defined as democratic and undemocratic.
181. *Appraisal of Growth in Reading*. Prepared by Division of Tests and Measurements. Educational Research Bulletin of the Bureau of Reference, Research and Statistics, No. 2. New York: Board of Education of the City of New York, 1941. Pp. vi+42.
Deals with (1) means and methods of measuring abilities and growth in various phases of reading and (2) newer concepts of reading as they affect measurement of pupils' abilities. Includes a bibliography of tests.
182. BROWNELL, WILLIAM A. "Current Practices with Respect to Phonetic Analysis in the Primary Grades," *Elementary School Journal*, XLII (November, 1941), 195-206.
Surveys present practices by means of a check list containing thirty items, each having four alternative responses, with regard to phonetic activities in Grades I, II, and III.
183. BROWNELL, WILLIAM A., with the assistance of ROY A. DOTY and WILLIAM C. REIN. *Arithmetic in Grades I and II*. Duke University Research Studies in Education, No. 6. Durham, North Carolina: Duke University Press, 1941. Pp. xii+176.
Summarizes previous research dealing with deferment of arithmetic instruction in Grades I and II and presents two studies: (1) arithmetic concepts and skills learned by children before they enter Grade I and (2) effects of teaching arithmetic in Grades I and II.

¹ See also Item 118 (Koshuk) in the list of selected references appearing in the March, 1942, number of the *Elementary School Journal*.

184. GRIFFITHS, BETTY; STIMSON, MARGARET, and WITMER, HELEN. "Factors Influencing Changes in School Adjustment between Kindergarten and the Second Grade," *Smith College Studies in Social Work*, XI (March, 1941), 191-284.
Reports (1) high correlation of favorable home conditions and socio-economic and psychological factors with proper adjustment in school and (2) proper adjustment in kindergarten as predictive of similar adjustment two years later.
185. HAMPEL, MARGARET (compiler). "Unpublished Studies in Elementary School English, 1941," *Elementary English Review*, XVIII (November, 1941), 255-62.
Includes abstracts of two research studies pertinent to the field of early childhood education: (1) "Poetry Selections for Children, Age Six or Under" by Katharine Barber and (2) "Some Practical Considerations in the Production of a Storybook for the First Grade" by Mabel M. Doyle.
186. HILDRETH, GERTRUDE. *The Child Mind in Evolution*. New York: King's Crown Press (a division of Columbia University Press), 1941. Pp. 164.
Analyzes and interprets mental development of a child as revealed in a selected series of drawings of trains and locomotives initiated at the age of two years and continued to the age of twelve. Emphasizes the fact that the young child uses "drawing as a basic graphic language for expression of ideas."
187. LANGSTON, RODERICK G. "A Core Vocabulary for Preprimer Reading," *Elementary School Journal*, XLI (June, 1941), 766-73.
Analyzes twelve preprimers published between 1931-40 and formulates a core vocabulary of seventy-nine words found to comprise two-thirds of the total running words of thirty-two books and to include almost the entire common spoken vocabulary of kindergarten children.
188. McLAUGHLIN, KATHERINE L. "Kindergarten Education," *Encyclopedia of Educational Research*, pp. 645-52. Edited by Walter S. Monroe. New York: Macmillan Co., 1941.
Summarizes the major research in the history of kindergarten education, curriculum, and teaching procedures.
189. McLAUGHLIN, KATHERINE L. "Primary Education," *Encyclopedia of Educational Research*, pp. 834-37. Edited by Walter S. Monroe. New York: Macmillan Co., 1941.
Summarizes major research dealing with the early history, the development, and the curricular problems of primary-school education in the United States.
190. NEMEC, LOIS G., and LOSINSKI, BLANCHE. "A Study of the Difficulty of Dolch Basic Sight Vocabulary in the Second and Third Grades of the Rural Schools in Twenty-two Counties of the State of Wisconsin," *Journal of Educational Research*, XXXV (November, 1941), 208-17.
Investigates the extent to which second- and third-grade pupils had difficulty in recognizing the selected service words and checks the most prevalent errors in pronunciation against the Gates Primary Word Recognition Test.

191. O'ROURKE, EVERETT V., and MEAD, CYRUS D. "Vocabulary Difficulties of Five Textbooks in Third-Grade Arithmetic," *Elementary School Journal*, XLI (May, 1941), 683-91.
Presents a study of the vocabulary difficulties found in five recently published textbooks for third-grade arithmetic.
192. SPACHE, GEORGE. "Problems in Primary Book Selection: IV. The Selection of First and Second Readers," *Elementary English Review*, XVIII (May, 1941), 175-81.
Presents the concluding article of a series dealing with the selection of reading textbooks for Grades I and II. The three preceding articles offered standards for selection of preprimers, primers, and supplementary books for those levels.
193. SPACHE, GEORGE. "New Trends in Primary-Grade Readers," *Elementary School Journal*, XLII (December, 1941), 283-90.
Analyzes three trends: (1) extensive use of color and pictures, (2) lessening of vocabulary burden, and (3) increase in repetition of basic vocabulary and its greater integration among successive readers. Recommends these trends as criteria for the selection of primary-grade books.
194. STEVENS, LEILA. "Format and Content of Readers," *Elementary School Journal*, XLII (October, 1941), 120-29.
Analyzes the thought content of twenty-two second- and third-grade readers for the purpose of determining suitability to child life and value to child development.
195. STONE, CLARENCE R. *Stone's Graded Vocabulary for Primary Reading*. St. Louis, Missouri: Webster Publishing Co., 1941. Pp. 30.
Includes words selected from preprimers; primers; and first-, second-, and third-grade readers published during the period 1931-41.
196. STONE, CLARENCE R. "The Vocabularies of Twenty Preprimers," *Elementary School Journal*, XLI (February, 1941), 423-29.
Analyzes statistically the vocabularies of twenty preprimers of recent date.
197. TAYLOR, ELIZABETH ANN. "Achievement Scales in Physical-Education Skills for Children in Grades I, II, and III," *Elementary School Journal*, XLI (May, 1941), 677-82.
Presents achievement scales for measuring eight physical-education skills in the first three grades. Skills measured include thirty-yard dash, kicking six-inch ball for distance, tossing beanbag for accuracy, throwing six-inch ball for accuracy, and standing broad jump.
198. WILSON, FRANK T. "Reading Interests of Young Children," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 363-89.
Presents data supplied by parents on reading interests of 152 kindergarten and first- and second-grade children and reports interest in reading as well as in letters and numbers before entrance to school.

Educational Writings

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REVIEWS AND BOOK NOTES

HOW TO MAKE THE READING PROGRAM FIT INDIVIDUALS.—The monograph under review¹ consists of articles which have been planned to give pertinent and penetrating insights into the conditions and the problems faced today in all efforts to improve reading programs and to increase the efficiency of the individual reader at each level of development. This volume gives both the practical and the theoretical approach which should prove helpful to administrators, supervisors, classroom teachers, and all other educators interested in increasing reading efficiency.

The organization of the monograph is such that one who reads it may learn about a problem peculiar to a particular level of development, or about methods of coping with a particular problem at all levels, or about problems peculiar to the entire field of reading. Each of the parts of the monograph takes up a phase of the central theme and considers that phase at all levels of development, from the primary-grade through the college level. The articles have been written by educators who have been putting the suggestions into effective use in actual classroom situations and by research specialists, who give to all the benefit of their experiments in the adjustment program. Each of the articles emphasizes the central theme and adapts it to the particular field of thinking. The language used in presenting the material is such that any person familiar with educational terminology can read the monograph with complete understanding. The suggestions and the conclusions to be found in the monograph should prove of great help to persons interested in the attempt to adjust reading programs in such a way as to meet the conditions and the problems peculiar to each child as an individual.

While several of the articles emphasize some of the same ideas, the interpretations are different and the suggestions are adapted to different situations. The variation from article to article is, however, not too great. The following are some of the important ideas which may be gained from a thoughtful reading of the monograph.

1. The classroom teacher is an important part of the adjustment program, both in carrying out the basic reading program and in meeting the problems

¹ *Adjusting Reading Programs to Individuals*. Proceedings of the Conference on Reading Held at the University of Chicago, Vol. III. Compiled and edited by William S. Gray. Supplementary Educational Monographs, No. 52. Chicago: Department of Education, University of Chicago, 1941. Pp. xii+344. \$2.00.

peculiar to each of the many curricular fields, of which reading is an essential part. Most of the articles emphasize that the teacher should be approachable and sympathetic and that he should be aware of the needs of each child as an individual. Many suggestions are given which will assist the classroom teacher in planning a program to fit the varying needs and characteristics of the individual pupils.

2. Records, inventory lists, and check lists are valuable parts of the materials needed to discover how pupils vary in their adjustment to the reading program.

3. At all levels, reading programs should be flexible enough to fit the reading needs of individuals within the learning situation. The teacher should feel free to adjust the time schedule to fit the needs of particular pupils requiring guidance. The school administration should institute experiments to discover how programs may be planned to fit the needs of pupils of varying types. The reading needs of the individual pupil should be met in order that the child may experience success rather than failure and develop an interest in reading and a desire to read other materials. Many fine practical suggestions for carrying out the adjustment program are given, and procedures in use in several school systems are described.

4. If the reading program is to be adjusted to the needs of the individual, the reading materials selected must be suitable for each level of development. This pertinent suggestion applies not only to the materials being used in the basic reading program but also to the materials for each of the subjects of the content fields. The materials should be attractive but adequate, and they should be selected with the interest and the taste of the individual pupil as the criteria. The articles in this part of the monograph provide valuable suggestions which will help in planning the materials for a program of adjustment.

5. Many of the articles consider the skills which should be developed to insure mastery of ideas at each level of development. These discussions should indicate to all the need for more systematic teaching to insure (a) readiness for a reading situation and (b) development in all subjects of the many abilities essential to reading for specific purposes.

6. The treatment of the problem of adjusting the reading program to unusual learning types is very well planned. Teachers working in schools which have no administrative programs for taking care of pupils of such types are much concerned about the problems encountered, since they are not trained to handle these unusual pupils. The monograph gives consideration to each of the types: the slow-learning child, the exceptionally bright child, the pupil with a visual handicap, the deaf and the hard-of-hearing, the socially and emotionally handicapped, and the nonreader. These pupils present problems which need much adjustment if the reading program is to prove helpful. Again, teaching procedures and pupil activities need to be planned to meet the needs and the characteristics of the individual. Useful suggestions for helping these cases will be found in this part of the monograph.

The program for adapting and adjusting all reading activities to fit the characteristics and the needs of individuals in every teaching and learning situation will depend on the ability of administrators, teachers, and other educators to humanize teaching and to promote growth for each individual according to varying abilities, interests, and tastes. This monograph, with its many suggestions, should prove helpful in the planning of an effective program.

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WHAT COURSES OF STUDY SAY THE SCHOOLS TEACH.—Curriculum workers generally will give their wholehearted approval to the major thesis of a recent study,¹ namely, that there is need "for a more accurately determined and realistic understanding of actual conditions in American education . . . that such understanding is absolutely vital to the success of any program of educational improvement" (p. 4). Professor Bruner and his associates have analyzed thousands of mimeographed and printed courses of study in the fields of science, social studies, and industrial arts, for Grades I–XII, to provide an inventory of what courses of study say the schools teach in these fields.

The investigators recognize the shortcomings of courses of study as exact descriptions of what actually happens in the classroom. The work involved in getting a truly accurate picture of what the schools teach is overwhelming. Whatever the limitations of this study, the investigators have done a painstaking and thorough job in analyzing one source of information. It was their purpose:

To make available to those who are preparing curriculum materials, such as courses of study, textbooks, study guides, and encyclopedias, the following guides:

- a) Information regarding the frequency with which certain topics are treated in the various subjects and grades.
- b) A partial analysis of patterns of organization of content in certain fields.
- c) An estimate of some general curriculum trends and shortages . . . which it is hoped will be of assistance to those working with curriculum materials [p. 7].

Chapter ii of the report describes in detail the procedures and the techniques which were employed in the study: the selection of the courses of study, the preparation of outlines, and the techniques employed in analyzing the outlines to yield what is called an "index of significance" for each topic. The "index of significance" is an interesting device for expressing quantitative relations. As an example, in the report on science courses appears the topic "Air." The index of significance for the topic is 11:716/22.

contain a unit on air. . . . The 716 represents the total number of items on "Air" found in all the courses which contained the unit. . . . The 22 following the slant bar is the total number of science courses for Grade IX which were analyzed for this study. The index of significance 11:716/22 should be read as follows: 11 courses of the 22 which were examined contained a unit or major topic on "Air," and a total of 716 items were devoted to a discussion of this particular unit or major topic [p. 47].

Chapter iii gives not only an analysis of science courses but other information of interest to curriculum workers, such as a discussion of the overlapping of content among grades and the selection and the organization of subject matter in the field of science. The investigators conclude that there seems to be but little agreement on the placement and the sequence of science topics either with respect to grade level or with regard to their place within a given year. Attention is also called to the dearth of items concerned with consumer problems.

Courses of study in the social studies and in industrial arts were subjected to the same painstaking analysis as were those in science.

The final chapter presents a discussion of the overlapping between subject fields and uses the topic "Transportation" to illustrate the point. There is also a discussion of curriculum trends in organization and in types of content.

Appendix I contains a list of revised "Criteria for Evaluating Teaching and Learning Materials and Practices," which may be of value to some individuals. Appendix II presents "Some Principles for Establishing and Conducting a Curriculum Workshop-Laboratory," which seem to have no particular relation to the subject of the study.

While this report should be a part of every curriculum library, still it is highly important that the material be regarded as historical. The data presented deal with the courses of study developed in the early and the middle 1930's. No educator or publisher of curriculum material should make the mistake of assuming either that what was done in the 1930's was valid or that practices which were valid in the 1930's are necessarily the best practices for the 1940's.

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CLASSROOM RELATIONSHIPS BETWEEN PUPIL AND TEACHER.—Among the expanding responsibilities which are today laid on the teacher, none is greater than that of developing desirable personality traits and habits which will enable the child to assume his obligations in our democratic society. The school "must be considered a social laboratory in which children learn to live with others co-operatively and harmoniously" (p. 2). Especially is this statement true of schools in urban communities where family life has ceased to furnish such educational experiences. Learning to live together in the classroom "co-operatively and harmoniously" includes participation by both teacher and children. The teacher is the one adult personality, the guiding force, and on the teacher lies

the responsibility of setting an example of tolerance, industry, fair dealing, and balance.

Older teachers know that "As the teacher, so is the class." We have all witnessed the phenomenon in which a class that seemed made up of ill-behaved little demons under one teacher quickly became a group of helpful and willing workers under another. We have sensed the reason for this situation: the reactions of the individuals to the stimuli emanating from the teacher. Therefore a study of pupil-teacher relationships¹ is timely and profitable. Teachers who are lazy and indifferent, careless of the opportunities that every classroom affords, will obtain troublesome responses from the keen little people whom they suffer to come before them daily. Teachers who are alert, broad-minded, well educated, and equipped with a sense of humor are sure to elicit keen workmanship, eagerness to learn, and a sense of proportion from their fellow-beings in the schoolroom.

Were the task merely one of imparting information and enforcing study of factual material which was later to be given back in the cut-and-dried recitation, a kind of educational regurgitation, then being a teacher would merely require some knowledge, a strong arm, and a frowning personality. Capable teachers have long recognized that their work is much more than that ancient concept of "lick 'em and larn 'em." Teachers must plan for their pupils experiences which will be educative because of the opportunities provided for seeking and finding information (vastly different from memorizing set lessons), for sharing work and information with others, for accepting from others substantial contributions to the whole learning, for working both as leader and as follower, for deciding on worth-while projects, for finding ways and means of solving problems, and for benefiting from the total results of all workers.

In observing the work of a number of teachers, the author noted certain desirable and undesirable relationships—the effects on the pupils of "good" teaching and the results of ineffective teaching. Setting these outcomes opposite each other as samples of positive and negative teacher behavior produces a vivid, practical series of object-lessons for the teacher in service as well as for the novice. Hardly one of us will fail to recognize as applicable to himself at least one of the examples of negative classroom conduct. From these examples of behavior may be derived a series of principles for positive behavior, which of course may be extended indefinitely. Naturally some principles are of primary and others of secondary importance, but any such list must include essential characteristics. Abstract principles mean little to students of education, and not much more to the initiated. Coupled with case studies, however, they make an effective impression.

In a summary of the behavior of teachers who contribute to the full and rounded development of children, it should be said that, above all else, these

¹ Bernice Baxter, *Teacher-Pupil Relationships*. New York: Macmillan Co., 1941. Pp. 166. \$1.50.

teachers were capable of effecting a natural person-to-person relationship between themselves and their pupils.

From the observations is derived a chapter on desirable pupil behavior and on the teacher's part in securing this behavior through understanding, fairness, and the practice of democratic principles.

As children mature, they need to learn their own powers and their own weaknesses. Nothing will reveal these to them as effectively as self-discovery. School should provide an experience so broad that every individual can find activities in which he can succeed as well as those in which he proves less efficient. It is . . . the teacher's place to guide [children] into channels of successful enterprise which will offset other defeats [p. 92].

The school will make its greatest contribution if it will provide children with opportunities for personal and social growth which are compatible with the purpose of education in a democracy.

A chapter describing an effective teacher is helpful because it contains many observations of a good teacher in action. Although no teacher is perfect and although opinions among educators may vary widely as to what constitutes effectiveness in teaching, most educators will agree that the traits and characteristics which the author has selected are fundamental and that these are found in all effective teaching.

From her study Miss Baxter has derived a rating scale for judging the teacher's personal effectiveness. Though brief, it will be found valuable for supervisors, teachers in service, and, to some extent, students of education. The study closes with the statement that, since education is accepted generally as the best assurance for the extension of democratic living, teachers must be endowed with the same attitudes and habits which they would impress upon others. It is economically wise, therefore, that the influence exerted by young people who desire to teach be determined with thoroughness before they are permitted to enter the profession.

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THE REWARDS OF TEACHING.—There are nearly thirty million children in the schools of the United States. It is a significant fact that these American states intend to make it possible for every child to enjoy the advantages of an acceptable kind and amount of schooling. Admittedly, however, the nature of the facilities and the quality of the teaching service actually provided for children in different types of communities throughout the country are in no sense acceptably equal. The existing inequalities are most frequently ascribed to the variable level of economic resources among the states as well as among communities of the same state. These are the conspicuous factors contributing to differentials in the attractiveness and the effectiveness of institutional training in the elementary and secondary grades. Heroic efforts are continuously ad-

vanced to remove the causes or to alleviate the unfavorable effects in areas where serious limitations are thereby imposed on the schools. Much progress has been made in improving these underprivileged schools in recent decades, mostly through remedial legislation in the nature of various reforms of state tax systems and increases in state aid to local school units. At the same time the quality of the common schools has been further improved by other readily observable measures, notably the advances in requirements and professional training for teaching service and the betterment of the occupational and economic status of the teaching staff.

Observing superintendents and supervisors have long concerned themselves with another source of inequality in teaching service which is manifest within the organization of even the most favored school situations. With like facilities and materials of instruction and under the same supervisory management, teachers of equivalent experience and preparation secure markedly different results with comparable groups of pupils. Many valuable suggestions for dealing with the problems which arise in connection with the disparity in the effectiveness of teachers may be drawn from the story¹ of a typical American teacher as written by a superintendent of long experience in the public schools.

In his attempt to explain the normal course of development of a satisfactory teaching career, the author draws on the experiences of many teachers whose services and purposes were revealed to him through observation and consultation. From numerous incidents in the professional lives and activities of these teachers he has selected a series of experiences which may be assumed to represent the possible career of a like-minded person given similar opportunities and confronted with professional and personal problems. The selected incidents begin with the trying period in which the would-be teacher is attempting to find out what the job of a teacher includes, and they continue through to the closing years of active service during which this teacher occupies a position of influence and leadership both locally and in state educational councils.

The book is divided into three parts. Part I, dealing with the professional phases of the teacher's career, considers such problems as the significance of the legal requirements for public-school teaching, the attitude of different teachers in service toward the responsibilities of a teaching position, the attitude of different teachers and teacher organizations toward the work load of classroom teachers, and the qualities and aims of recognized leaders in the teaching profession. Each incident related throws some light on the reasons for teacher perplexity regarding these matters and illustrates the processes by which one teacher arrived at the right conclusion with reference to the problem she faced. Part II is devoted to personal phases of the professional development of the teacher—community demands and restrictions, salary and the intangible rewards of teaching, and professional and social security. The very effective treatment of these problems

¹ L. John Nuttall, Jr., *Teacher*. New York: Macmillan Co., 1941. Pp. xii + 164. \$1.75.

follows the plan described for Part I. Part III, looking to the future, includes a single chapter entitled "A Heritage to Those Who Follow."

The motive of the book is obviously that of aiding bewildered teachers to find clues to the behavior appropriate to a teacher's position in many problem situations and to the most judicious, long-time planning with respect to a satisfactory teaching career. The volume will serve this purpose effectively for many beginning teachers, assuming that they have a serious interest in finding out what behavior will probably result in improvement in teaching service rather than an interest in finding out how to keep the job from interfering too much with other things they like to do. Superintendents, principals, and supervisors will find this story of a successful and acceptable teacher pleasingly reminiscent of the professional progress of teachers who have worked under their direction.

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THE PLACE OF THE SOCIAL STUDIES IN THE ATTAINMENT OF THE PURPOSES OF ELEMENTARY EDUCATION.—A significant indication of the growing interest of teachers in the subject of the social studies is the increase in the number of publications providing information about this phase of the curriculum. Such publications vary from specific treatments of particular units to more or less abstract discussions of principles and objectives involved in methods and content. One more publication¹ which has been added to the list is a compilation of the theoretical and the practical. It deals with features of the social-studies program which are of interest to elementary-school teachers everywhere. It was prepared by a number of authors who are specialists in the field of social studies and in elementary education as well.

The aim of the volume is "to provide guidance and help for teachers and others in developing a more wholesome, satisfying, and effective program of instruction in the social studies of the elementary school" (p. v). While the elementary school is generally thought of as including the period from Grade I through Grade VI, the authors of this yearbook consider that the area in which teachers should be informed is that beginning with the nursery school and ending with the junior high school.

In the Preface the authors set forth the large questions which are uppermost in discussions related to social studies and which, moreover, constitute the foundation of teaching in this subject. The book does a splendid job of clarifying ideas on these questions: What is the place of the social studies in respect to the whole curriculum? What determines the selection of subject matter? What determines the experiences to be provided and the sequence for which they are

¹ *The Social Studies in the Elementary School*. Edited by William E. Young. Twelfth Yearbook of the National Council for the Social Studies. Washington: National Council for the Social Studies, 1941. Pp. xx+244. \$2.00 (paper), \$2.30 (cloth).

planned? Just what is an experience curriculum? Why is an experience curriculum preferred? What methods of evaluation should be used?

The book is presented in thirteen chapters which are organized helpfully into four sections entitled "The Child, the School, and Society," "Curriculum Development in the Social Studies," "Unitary Samples of Social Learning," and "Evaluation in the Social Studies."

Part II, comprising more than a hundred pages, is much larger than any other section of the book. It is exceedingly valuable to those who seek to understand the functions which the social studies perform and the methods of selecting and adapting subjects for a particular grade. The chapter which is devoted to "Materials for the Social Studies Program" contains many helpful suggestions on wisely chosen materials and much needed information on when and how to use them. Discussions concerning the uses of visual and auditory aids, such as lantern slides, motion pictures, radio, maps, globes, and charts, with a splendid list of selected references, make this portion an outstanding contribution. Textbooks and workbooks, supplementary books, and libraries are described as instruments to be used in teaching the social studies, and the extent to which they aid instruction is set forth clearly.

Stress is placed on the role which reading plays in the social-studies program. The selection of books to meet two, three, or even four ranges of reading ability is recommended. It is brought out that, while oral discussions and pictures are important aids in learning facts and principles, pupils are handicapped if they do not learn to read social-studies materials with understanding and discrimination. In this connection the following statement concerning the use of the textbook may be of interest to those who are in doubt concerning the "textbook method": "The textbook is and will continue to be the most important single instrument used by the teacher in teaching social studies to children who have mastered the fundamentals of the reading process" (p. 123). However, it is pointed out that, while the textbook is an indispensable tool, it is only one of many tools. Pupils need to read other books in order that a satisfactory program may be developed. About five pages are given to a thoughtful discussion of supplementary books which are related to various social-studies interests, and a helpful bibliographical list is included.

The problem of evaluation is one that has been more or less neglected in publications relating to social-studies programs. More space has been devoted to objectives, functions, and procedures in teaching than to the formulation of an effective evaluation program. All elementary-school teachers are carrying on formal or informal appraisals of their instruction in social studies, but in many schools these efforts are limited and inadequate. It is feared that the popular conception of evaluation is the measurement of social-studies information and attitudes, with the emphasis on information. Perhaps the development in evaluation has not kept pace with the corresponding development in curriculum practices and objectives. These two aspects of teaching should supple-

ment each other. It is particularly significant at this time, when definite advance in evaluation seems inevitable, to find the last section in the book dealing with recent developments in evaluation procedures.

The portion of Part IV giving specific directions for planning and carrying out an evaluation program is one of the outstanding contributions of this book and should be read by every teacher of social studies. The rather comprehensive appraisal program carried on by an elementary school in New York City is described in order to indicate the philosophy of the school and to outline useful steps in the appraisal of a social-studies curriculum.

This volume will be found indispensable to all social-studies teachers and will be of interest to educators who seek to keep informed about modern trends in education. Every section gives the reader valuable information concerning some pertinent phase of the teaching of the social studies.

GRACE E. STORM

University of Chicago

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GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

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- GEYER, DENTON L., with supplementary chapters by ALBERT J. HUGGETT and DONALD K. MARSHALL. *Current Issues in Education*. Chicago: Werkman's Book House (350 West Sixty-ninth Street), 1942. Pp. 92.
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- MCDONALD, GERALD DOAN. *Educational Motion Pictures and Libraries*. Chicago: American Library Association, 1942. Pp. xii+184. \$2.75.
- McKIM, MARGARET GRACE. *The Reading of Verbal Material in Ninth Grade Algebra*. Teachers College Contributions to Education, No. 850. New York: Teachers College, Columbia University, 1941. Pp. viii+134. \$2.10.

- NEWMAN, SAMUEL CLAYTON. *Employment Problems of College Students*. Washington: American Council on Public Affairs, 1942. Pp. xvi+158. \$3.00 (cloth), \$2.50 (paper).
- Philosophies of Education*. Forty-first Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1942. Pp. xii+322. \$2.25 (paper), \$3.00 (cloth).
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- SAWYER, RUTH. *The Way of the Storyteller*. New York: Viking Press, 1942. Pp. 318. \$2.50.
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- THORNDIKE, E. L. *The Teaching of English Suffices*. Teachers College Contributions to Education, No. 847. New York: Teachers College, Columbia University, 1941. Pp. 82. \$1.75.
- WILLIAMS, E. I. F. *The Actual and Potential Use of Laboratory Schools in State Normal Schools and Teachers Colleges*. Teachers College Contributions to Education, No. 846. New York: Teachers College, Columbia University, 1942. Pp. x+260. \$2.65.

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- ANTOVILLE, HENRIETTA D., and TRUBE, CATHERINE M. *Practical Mathematics*: Book I, pp. viii+338; Book II, pp. viii+342; Book IV, pp. viii+336. New York: Noble & Noble, 1942. \$1.04 (each).
- DOLCH, EDWARD W. *The Basic Sight Word Test on the Basic Sight Vocabulary*. Champaign, Illinois: Garrard Press, 1942. \$1.00 (per set).
- FLOYD, OLIVER R., and KINNEY, LUCIEN B. *Using Dollars and Sense: Consumer Economics*. New York: Newson & Co., 1942. Pp. 314. \$1.40.
- GLOSS, G. M. *Physical Ability Test (Males)*. New York: New York University Bookstore (18 Washington Place).
- KASER, SADIE. *Curriculum Bulletins*. "Community Helpers: A Second Grade Unit-Plan": No. 46, "The Postman," pp. 9, \$0.15; No. 47, "The Dairyman," pp. 12, \$0.15; No. 48, "The Fireman," pp. 10, \$0.15. "Community Friends: A Second Grade Unit-Plan": No. 49, "Squirrels," pp. 8, \$0.14; No. 50, "Birds," pp. 16, \$0.25. Eugene, Oregon: University Co-operative Store, 1941 (mimeographed).

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"Curriculum Improvement in Washington." Proceedings, Inland Empire Curriculum Society, Meany Hotel, Seattle, November 14 and 15, 1941. Curriculum Bulletin No. 51. Eugene, Oregon: University Co-operative Store, 1941. Pp. iii+39 (mimeographed). \$0.50.

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UNITED STATES OFFICE OF EDUCATION PUBLICATIONS:

Bulletin No. 6, 1940, Studies of State Departments of Education, Monograph No. 1—*State Boards of Education and Chief State School Officers: Their Status and Legal Powers* by W. S. Deffenbaugh and Ward W. Keesecker. Pp. viii+104. \$0.15.

Bulletin No. 6, 1940, Studies of State Departments of Education, Monograph No. 8—*Supervision of Elementary Education as a Function of State Departments of Education* by Helen K. Mackintosh. Pp. vi+86. \$0.15.

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Educational News and Editorial Comment

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ISSUES RELATING TO THE COMICS

THE rapid increase in the popularity of comic magazines during the past five years has stimulated a great deal of thought and discussion among parents, teachers, and others concerned with child development. A review of recent literature relating to comics reveals opposing views concerning the effects of their wide circulation among children and the extent to which interest in such material should be used in increasing and improving the reading habits of pupils.

One group looks on the reading of comics with marked disfavor and advocates abolishing the comic books altogether. Sterling North, in his famous editorial which appeared in the *Chicago Daily News* on May 8, 1940, and which was referred to in this section of the January, 1941, *Elementary School Journal*, calls these magazines a "poisonous mushroom growth" and deplores the fact that ten million copies of this "graphic insanity" circulate each month. His criticisms are stated in the following excerpts from the editorial.

Badly drawn, badly written, and badly printed—a strain on young eyes and young nervous systems—the effect of these pulp-paper nightmares is that of a violent stimulant. Their crude blacks and reds spoil the child's natural sense of color; their hypodermic injection of sex and murder makes the child impatient

with better, though quieter, stories. Unless we want a coming generation even more ferocious than the present one, parents and teachers throughout America must band together to break the "comic" magazine. . . .

The shame lies largely with the parents who don't know and don't care what their children are reading. It lies with unimaginative teachers who force stupid, dull twaddle down eager young throats, and, of course, it lies with the completely immoral publishers of the "comics"—guilty of a cultural slaughter of the innocents.

But the antidote to the "comic" magazine poison can be found in any library or good bookstore. The parent who does not acquire that antidote for his child is guilty of criminal negligence.

At the opposite extreme are those who feel that comic books satisfy a real need in the life of children and therefore should be read freely. Josette Frank, staff adviser to the Children's Book and Radio Committee of the Child Study Association of America, upholds the comics in the following statements from a recent radio talk given over the Columbia Broadcasting System, which is quoted in a brochure on *Children and Comic Magazines*, distributed by the Juvenile Group Foundation (125 East Forty-sixth Street, New York City).

Hop Harrigan, flying his streamlined plastic plane or tracking down a sabotage plot, is much closer to home than Ulysses doing battle for Helen of Troy—though many children do enjoy both. Today's children want their heroes to rush in and conquer today's villains—gangsters, *saboteurs*, foreign spies. . . .

We at the Child Study Association have a deep and abiding faith in children. I believe that we may safely accept our children's likes and dislikes for what they are—a stage in their growth—provided we also help them grow toward wider horizons. I believe that, along with their other reading, we can safely let our children read the comics.

Furthermore, W. W. Sones, professor of education and director of curriculum study at the School of Education of the University of Pittsburgh, observes in the same pamphlet:

The comic book is a widespread feature of the current environment of children. As such it must be recognized by parents and teachers as an influence on child growth and development. Whether it is to be positive or negative in its effects can be controlled. If comic books are ignored, ridiculed, or forbidden, we encourage rebelliousness, the forbidden fruit is made more attractive, and an opportunity is lost to share an interest with the child. On the other hand, both in school and at home this interest may be capitalized to promote many lines of desirable growth and development.

Another series of judgments is expressed by Robert L. Thorndike, of Teachers College, Columbia University, who concludes his preliminary report on a study of comic-magazine vocabulary in this manner:

We have here an educational resource which (1) provides many thousands of words of reading experience; (2) introduces the child to a wide range of vocabulary, including many useful words which stand in need of additional practice by the typical child in Grades IV-VIII; (3) provides interest appeal and picture context to make reading and vocabulary experience of a fairly advanced level attractive even to the retarded reader. The teacher and librarian should be aware of the positive contribution of these materials as an out-of-school supplement to the child's reading experience.

Several attempts are now being made to utilize children's interest in comics as a means of securing desirable educational goals. One such attempt is that of the Superman D.C. Publications, which are prepared with the assistance of an editorial advisory board including educators, child psychiatrists, and child-study authorities. The materials published include the *Superman* comic magazine and workbook and the Superman Good Reading Project. The workbook contains vocabulary exercises of various kinds in addition to the picture stories. The Superman Good Reading Project attempts to stimulate interest in reading library books through the use of posters and book lists.

Another attempt is being made by *My Weekly Reader* to provide a series of comic strips which can be associated with science or the social studies. A third approach is being made by the editors of *Parents' Magazine*, who are sponsoring three comic magazines called *True Comics*, *Calling All Girls*, and *Real Heroes*. In the first of these, historical incidents are pictured in a fashion similar to the techniques used in comic magazines.

Still another attempt to utilize children's interests in the comic magazines has resulted in an analysis of the elements of interest and their application in selecting reading material of high literary quality as substitutes for the comics. Although few of them are really comic, they are filled with adventure, fantasy, mystery, and magic—all of which appeal to children. In a bulletin entitled *Books vs. Comics*, published by the Association for Arts in Childhood

(70 Fifth Avenue, New York City), Professor Paul Witty, of Northwestern University, who has recently studied the interests of several hundred children in comics, makes the following constructive suggestions.

Reading the comics is simply an activity which parallels the child's interest in the highly exciting, adventurous offerings of the radio and the motion picture. In meeting this problem, it is essential first that the teacher make as complete an appraisal as possible of each child's interests and his many-sided nature, since it is only from an examination of the child's total pattern that cues may be obtained for directing him. . . .

The second step implies an attempt to surround children with a variety of good literary sources which are rich in the elements of action, surprise, adventure, and excitement. There are many books for boys and girls which can be used advantageously in this endeavor. . . . Together the school and the home can meet the challenge presented by this activity. . . . Through their co-operative efforts, boys and girls may be introduced to a variety of satisfying reading experiences from factual, imaginative, and exciting sources. This will be the first important step on the road to better reading and improved tastes.

These varied approaches to the problem resulting from the increasing popularity of comic magazines are still being revised and improved. Their effects on the interests and attitudes of children merit very careful study on the part of both parents and educators.

READING SERVICE BULLETINS

LATE in 1941 a conference on reading was held in New York City, the chief purpose of which was "to inaugurate a plan by which all those confronted with problems related to reading could pool their knowledge and share their experience." One of the significant results of this meeting was the organization of a Reading Service under the auspices of the Institute for the Study of Personality Development of the Progressive Education Association. The Reading Service will act "as a clearing-house for the exchange of ideas among teachers, parents, and psychologists on any and all problems connected with the learning and use of reading."

Those responsible for the Reading Service have adopted a somewhat comprehensive program of activities. They plan to conduct meetings and conferences at the suggestion and with the co-operation of the members. The second meeting was held in conjunction with the spring meeting of the Institute for Personality Develop-

ment, May 9, 1942, at the Hotel Biltmore, New York City. During the school year they will issue four *Reading Service Bulletins*. Another project is the preparation of a series of bibliographies. The first of these, which is now available, is a *Bibliography of Bibliographies*, a publication showing "where to look for lists of books." It includes annotated references to bibliographies in book, pamphlet, and mimeographed form; books about books; inexpensive books; and books on special topics, such as adventure, America, animals, China, Latin America, and remedial reading. Another project involves the production of experimental materials designed to fit specific needs. Experimental editions relating to such themes as "Vikings," "Water," and "Electricity" are now available at a cost of twenty-five cents each.

Membership in the Reading Service is one dollar a year and entitles individuals to the four annual bulletins. Interested persons should address the Reading Service, 17 East Ninety-sixth Street, New York City.

READING READINESS IN CONTENT SUBJECTS

THE concept of readiness has recently assumed large importance in school activities above the primary grades. This is due to a clear recognition of the fact that what a child is prepared for at any stage in his development, and in any subject or field, depends, to a large extent, on previous training and experience. An interesting application of this principle is found in a recent study by M. Theresa Wiedefeld, the report of which has been published as Number 31 of the Johns Hopkins University Studies in Education under the title *An Experimental Study in Developing History Reading-Readiness with Fourth-Grade Children*.

This study began with an intensive survey of history-teaching in Grade IV in several counties of Maryland. The survey revealed clearly some of the current weaknesses in the teaching of history and dramatized the fact that "reading does not function effectively as a tool in a subject in which the children cannot think." Some of the possible explanations offered for inability to think in history were "lack of experience, poverty of vocabulary, dearth of information, and inability to deal with abstract ideas of a subject with which they

are unfamiliar, however simply these ideas are expressed in the textbook."

On the basis of the facts brought out in the preliminary survey, tentative assumptions concerning reading in special subjects were formulated and used as hypotheses for experimentation in fourth-grade history. Because these assumptions merit careful consideration in planning and directing reading activities on any subject in the middle and upper grades, they are quoted here in full.

1. Reading is not a general ability which can operate with the same degree of ease and success in all kinds of subject matter.

2. Knowledge of the specific subject treated plays an important part in reading any particular subject matter.

3. Language consciousness, involving control of vocabulary, sentence structure, grammatical form, and paragraph construction, is an important factor in reading.

4. Reading is reacting. The reader uses the ideas of the written material to shape his own trend of thought. It is a process of reconstructing experiences in the light of the written facts and ideas.

Reading is like seeing a reflection of one's own ideas in the thoughts of another and fusing them so that a product results which is a different thing from either of the originals.

5. Mechanical reading builds ideas which correspond to the word combinations of the author. Thoughtful reading results in ideas which are generated out of such experiences as the individual reader brings to his reading of the written material. The response a reader makes to any written matter is different for each individual reading it; it is determined by his own experience, yet different from it, and different from what the author of the material intended.

6. The abilities necessary to thoughtful reading, exclusive of the mechanical skills, are thinking abilities, the same as those used in reacting to any problem. The mental abilities needed for reading are the same as those needed in listening, the same as those used by the blind man who reads with his fingers. Only the mechanisms for perceiving the meanings are different.

EVALUATING GROWTH IN READING

A VERY valuable function of bureaus of research in city school systems is illustrated by a recent series of bulletins on reading prepared by the Bureau of Reference, Research and Statistics of the New York City public schools. The first bulletin, which was issued in September, 1941, was concerned with the individualization of instruction in reading. The second, which was issued in November, is

concerned with basic principles and with the means and methods "of measuring abilities and growth of pupils in the various phases of reading." It was prepared by the Division of Tests and Measurements under the immediate supervision of J. Wayne Wrightstone, assistant director.

The contents of the bulletin, which is entitled *Appraisal of Growth in Reading*, are based on the assumption that the nature and the scope of any program of evaluation and the specific techniques of appraisal used are determined by prevailing concepts of reading and the objectives to be achieved. In harmony with recent trends in thinking, reading was defined as a complex intellectual process, involving not only the recognition of words and the sense meaning of a passage but also the reader's reactions and use of the ideas apprehended. Furthermore, the fact was emphasized that a child's progress in reading is intimately related to his growth in insights, understandings, attitudes, and interests; to the development of behavior patterns; and to the modification of personality. The objectives of reading were equally broadly conceived and were classified in a somewhat new and challenging fashion under four general headings: (1) "Background for Reading," including such items as "The extension of experiences and concepts" and "Language development"; (2) "Fundamental Habits and Skills," including "Audio-visual-motor habits and skills," "Word mastery," "Speed of reading," and "Study and library skills"; (3) "Comprehension," including "Word meaning," "Apprehension of ideas," "Interpretation of ideas apprehended," and "Application of ideas gained through reading"; and (4) "Personal-social Adaptability," including "Purposes, tastes, interests," "Attitudes toward: self, others, reading, and problem-solving," and "Adjustment in a reading situation."

When the conception of reading is as broad as that reflected in the foregoing statements, appraisal of growth in reading is of necessity "a comprehensive and continuous process." This view is amply supported by the following trends in appraisal of reading as summarized in the bulletin.

1. The administration of a program of appraisal in reading is democratic. In the older type of testing program administrators and supervisors did practically all of the planning, but in the newer programs teachers are invited more and

more to participate in organizing and conducting the testing for their own classes and for the school. Pupils, also, are guided to study and evaluate their growth in reading.

2. Programs are planned to evaluate growth in the reading objectives selected by the staff for their own school and for the needs of their pupils.

3. Appraisal programs are comprehensive. They include all the major objectives of reading and call for formal or informal tests and measures which provide evidence about pupil growth in each objective.

4. Appraisal programs require a variety of techniques as (a) standardized tests—achievement, diagnostic, prognostic, aptitude, attitude, and personality; (b) records and reports of behavior which accompanies the reading situation—rating scales, questionnaire reports, interview reports, inventories, logs, anecdotal records, stenographic reports; (c) informal, or teacher-prepared tests; (d) special techniques for discovering defects of speech, vision, hearing, and motor co-ordination.

5. Appraisal programs are concerned with analyzing individual abilities, comparing the child's status in reading with his own previous status and with the status expected in terms of his mental ability and other factors.

6. Standardized tests are used systematically, and appraisal by informal techniques goes on continuously as a part of the teaching process.

7. Test results and observations or other data are gathered over a long period of time and preserved on cumulative record cards and in folders for each pupil. All this evidence is weighed, interpreted, and used with respect to the whole rather than piecemeal development of the child.

The major part of the bulletin consists in a series of practical suggestions to teachers and supervisors "for their guidance in setting up a program of appraisal in reading."

FIFTH ANNUAL CONFERENCE ON READING

THE Fifth Annual Conference on Reading at the University of Chicago will be held in Mandel Hall, June 24-27, inclusive. The central theme of the conference is "Co-operative Effort in Schools To Improve Reading."

The opening session will discuss the role of reading in the education of a free people. The remaining sessions of the conference will consider at length (1) the basic issues and guiding principles underlying co-operative techniques in improving teaching and (2) the specific procedures by which teachers and school officers may aid in improving reading programs, in increasing the reading efficiency of pupils, and in promoting desirable types of growth through reading.

The selection of the conference theme was based on the fact that the schools of this country face two very urgent and challenging tasks. The first is to promote development of the insights, understandings, loyalties, interests, and patterns of behavior that characterize a free people and the democratic way of life. The second is to prepare the boys and girls of this generation so that they will be able to help create a finer and a more stable civilization than has yet been achieved. Because of the large importance of reading in attaining these goals, vigorous campaigns to increase reading efficiency should be carried on throughout the country during the coming school year. Such campaigns are timely for two additional reasons: first, the prevailing dissatisfaction with the reading efficiency and interests of young people and, second, the notable progress that has recently been made in developing co-operative techniques for improving teaching.

In order to be of maximum service this summer, the Reading Conference is dedicated to the task of analyzing the problems which must be attacked in vigorous campaigns to improve reading and of providing for persons who attend the conference as much concrete help as possible in meeting the many challenging issues which they will face during the coming year. An outline of the program follows.

Wednesday Morning, June 24

GENERAL SESSION: "Theme of the Conference," William S. Gray, University of Chicago

"The Role of Reading in the Education of a Free People," Robert M. Hutchins, President, University of Chicago

SECTIONAL MEETINGS: "The Broader Ends To Be Attained through Reading and Other Aids to Learning"

1. Primary Grades

Elizabeth Ann Kempton, Kindergarten-Primary Supervisor, Public Schools, Gary, Indiana

2. Middle Grades

Margaret E. Kerr, Laboratory Schools, University of Chicago

3. High Schools and Junior Colleges

Paul B. Diederich, University of Chicago

Wednesday Afternoon, June 24

GENERAL SESSION: "The Nature of, and Techniques Involved in, Co-operative Effort To Improve Reading," Virgil E. Herrick, University of Chicago

SECTIONAL MEETINGS: "Issues Faced by School Staffs and Guiding Principles Underlying the Scope and Organization of an Adequate Reading Program"

1. Primary Grades

- a) "Basic Instruction in Reading," Amelia Traenkenschuh, Director of Curriculum and Instruction, Public Schools, Rock Island, Illinois
- b) "Reading in Other School Activities," Gertrude Whipple, College of Education, Wayne University; Supervisor of Reading, Public Schools, Detroit, Michigan

2. Middle Grades

- a) "Basic Instruction in Reading," Gertrude Whipple, College of Education, Wayne University; Supervisor of Reading, Public Schools, Detroit, Michigan
- b) "Reading in Other School Activities," John H. Cooper, Chairman of Social Studies, Tower Hill School, Wilmington, Delaware

3. High Schools and Junior Colleges

- a) Helen M. Roberts, Chairman of the Reading Committee, Public Schools, Denver, Colorado
- b) Hugh McCammon, Instructor in English and Chairman of the Reading Council, Stephens College, Columbia, Missouri

Thursday Morning, June 25

GENERAL SESSION: "Techniques by Which a School Staff May Identify Strong and Weak Aspects of Its Reading Program and Define Needed Changes," Earle W. Wiltse, Superintendent of Schools, York, Nebraska

SECTIONAL MEETINGS: "Recent Co-operative Efforts To Appraise and Reorganize Reading Programs"

1. Primary Grades

- a) "In Eaton County, Michigan," Sally B. Marks, Educational Consultant, Michigan Community Health Project
- b) "In Cicero, Illinois," Grace Boyd, Primary Supervisor, Public Schools, Cicero, Illinois

2. Middle Grades

- a) "In Shorewood, Wisconsin," Alice Flickinger, Teacher of Speech-English, Lake Bluff School, Shorewood, Wisconsin
- b) "In Eaton County, Michigan," Sally B. Marks, Educational Consultant, Michigan Community Health Project

3. High Schools and Junior Colleges

- a) Helen M. Roberts, Chairman of the Reading Committee, Public Schools, Denver, Colorado
- b) Hugh McCammon, Instructor in English and Chairman of the Reading Council, Stephens College, Columbia, Missouri

Thursday Afternoon, June 25

GENERAL SESSION: "Co-operative Techniques in Selecting Appropriate Reading Materials for All Aspects of a School's Program," Willard E. Goslin, Superintendent of Schools, Webster Groves, Missouri

SECTIONAL MEETINGS: "The Nature and Variety of Reading Materials Now Available and Their Selection, Administration, and Use"

1. Primary Grades

- a) "The Nature and Variety of Reading Materials," Katherine Clarke, Washington University, St. Louis; Supervisor, Public Schools, Clayton, Missouri
- b) "The Function of the Library in the Selection, Administration, and Use of Reading Materials," Dorothea Dawson, Supervising Instructor, School Libraries, Board of Education, Detroit, Michigan

2. Middle Grades

- a) "The Function of the Library in the Selection, Administration, and Use of Reading Materials," Dorothea Dawson, Supervising Instructor, School Libraries, Board of Education, Detroit, Michigan
- b) "The Nature and Variety of Reading Materials," Katherine Clarke, Washington University, St. Louis; Supervisor, Public Schools, Clayton, Missouri

3. High Schools and Junior Colleges

- a) "The Nature and Variety of Reading Materials," Kathryn Mansell, Sarah Lawrence College, Bronxville, New York
- b) "The Function of the Library in the Selection, Administration, and Use of Reading Materials," B. Lamar Johnson, Dean of Instruction and Librarian, Stephens College, Columbia, Missouri

Friday Morning, June 26

GENERAL SESSION: "Basic Principles of Learning Underlying the Effective Use of Reading Materials," Stephen M. Corey, Superintendent of the Laboratory Schools, University of Chicago

SECTIONAL MEETINGS: "Units Involving the Use of Reading Materials That Are Consistent with, and Illustrative of, Recognized Principles of Learning"

1. Primary Grades

- a) "Living Today: A Unit on Keeping Well and Happy," Winifred J. Randall, Laboratory Schools, University of Chicago
- b) "The Language Arts," Marion L. Edman, College of Education, Wayne University; Supervising Instructor, Language Education Department, Public Schools, Detroit, Michigan

2. Middle Grades

- a) "Reading," Marjorie Blanchard, Curriculum Co-ordinator, Public Schools, La Grange, Illinois
- b) "Science," Bertha M. Parker, Laboratory Schools, University of Chicago

3. High Schools and Junior Colleges

- a) "English," Edith E. Shepherd, Laboratory Schools, University of Chicago
- b) "The Social Studies," Robert B. Weaver, Laboratory Schools, University of Chicago

Friday Afternoon, June 26

GENERAL SESSION: "Controversial Issues in the Teaching of Reading and the Contributions of Research to Their Solution," Edward W. Dolch, University of Illinois

SECTIONAL MEETINGS: "Improving Teaching Techniques in Various Aspects of a Reading Program"

1. Primary Grades

- a) "In Promoting Reading Readiness and in the Initial Stages of Learning To Read," Olga Adams, Laboratory Schools, University of Chicago
- b) "In Later Stages of Development in Reading," Edward W. Dolch, University of Illinois

2. Middle Grades

- a) "In Promoting the Normal Development of Pupils in Reading," Paul A. Witty, Northwestern University
- b) "In Corrective and Remedial Teaching," Josephine H. MacLatchy, Ohio State University

3. High Schools and Junior Colleges

- a) "In Corrective and Remedial Teaching," Frances Triggs, Counselor, University Testing Bureau, University of Minnesota
- b) "In Promoting the Normal Development of Pupils in Reading," Paul A. Witty, Northwestern University

Saturday Morning, June 27

GENERAL SESSION: "Basic Issues and Co-operative Techniques in Developing Improved Programs of Evaluation, with Special Reference to Reading," Hilda Taba, University of Chicago

SECTIONAL MEETINGS: "Techniques of Evaluating Growth in and through Reading"

1. Primary Grades

- a) "Aspects of Growth in Reading and Related Methods of Evaluation," Marion Monroe, Specialist in Remedial Instruction, Public Schools, Pittsburgh, Pennsylvania
- b) "The Program of Evaluating Growth through Reading in Hamilton County, Tennessee," Eula A. Johnston, Elementary Supervisor, Hamilton County Public Schools, Chattanooga, Tennessee

2. Middle Grades

- a) "The Program of Evaluating Growth through Reading in Hamilton County, Tennessee," Eula A. Johnston, Elementary Supervisor, Hamilton County Public Schools, Chattanooga, Tennessee

- b) "Aspects of Growth in Reading and Related Methods of Evaluation,"
Marion Monroe, Specialist in Remedial Instruction, Public Schools, Pittsburgh, Pennsylvania
- 3. High Schools and Junior Colleges
 - a) "Reading and the Program of Evaluation in the University High School,"
Henry C. Meckel, University High School, Oakland, California
 - b) "Recent Efforts To Evaluate Growth in Reading in Junior Colleges,"
Harold B. Dunkel, Examiner, University of Chicago

Saturday Afternoon, June 27

GENERAL SESSION: "The Opportunities, Responsibilities, and Procedures of Various Staff Members in Co-operative Effort To Improve Reading Programs and the Reading Efficiency of Pupils"

Reports will be presented from the following groups, which will have met in separate conferences on Wednesday, Thursday, and Friday evenings:

School Superintendents	Middle-Grade Teachers
Elementary-School Principals	High-School Teachers
Grade Supervisors	Junior-College Teachers
Rural Supervisors	High-School and Junior-College Principals
Primary-Grade Teachers	

As indicated above, a unique feature of the program this year is the series of evening conferences, under competent leadership, that have been arranged for various groups. The members of each group will consider in detail their opportunities and responsibilities and the procedures that can be adopted to advantage in co-operative effort to improve reading programs and the reading efficiency of pupils. At the conclusion of these conferences, each group will prepare a summary report of their proposals, which will be presented at the general session on Saturday afternoon.

The University extends to teachers and school officers in elementary schools, high schools, and junior colleges a cordial invitation to attend the conference. It is open without fee to those who register for work at the University during the summer quarter. Persons not registered will be charged a fee of five dollars and a half for the conference period, a dollar and a half for all sessions of a given day, or seventy-five cents for a single session (tax included in all prices). To obtain additional information or copies of the program, address William S. Gray, Department of Education, University of Chicago.

WILLIAM S. GRAY

WHO'S WHO FOR MAY

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by WILLIAM S. GRAY, professor of education and executive secretary of the Committee on Preparation of Teachers at the University of Chicago. NEWTON EDWARDS, professor of education at the University of Chicago, treats of the basic assumptions and goals of democracy and points out some of the difficulties encountered by the schools and by the general population in protecting our democratic values in wartime. JOHN H. MARTIN, supervisor of the social studies in the public schools of Northport, New York, and O. J. LUPONE, supervisor of elementary-grade science in the same school system, question the suitability of much of the teaching done in the elementary school in the social-studies field and illustrate the difficulty of finding appropriate materials by giving a description of the progress of a unit on conservation which was undertaken by a sixth-grade class. JOHN H. TREANOR, vice-principal and teacher of English in Grades VII, VIII, and IX at Washington Irving School, Roslindale, Massachusetts, believing that children should be taught to write sentences before they are asked to write compositions, describes a procedure used to develop pupils' ability to compose pleasing sentences. MYRON R. GOLDIN, principal of Public School 176, Brooklyn, New York, and SEYMOUR ROTHSCHILD, assistant principal of the same school, interpret the results of a study carried out for the purpose of determining the stability of the intelligence quotients of foreign children as they progress through the elementary school. BERNARD D. KARPINOS, associate statistician of the United States Public Health Service, and HERBERT J. SOMMERS, assistant statistician of the same organization, in the first of a series of two articles present data, obtained by the National Health Survey in a study of more than four hundred thousand youths, which show the relation of educational achievement to socio-economic status. GERTRUDE HILDRETH, psychologist of the Lincoln School of Teachers College, Columbia University, and CHRISTINE P. INGRAM, assistant director of the Department of Child Study and Special Education of the public schools at Rochester, New York, present a list of selected references from the recent literature on exceptional children.

The writers of reviews in the current number PAUL B. DIEDERICH, assistant professor of education at the University of Chicago. LOUISE W. PUTZKE, teacher in the Laboratory Schools at the University of Chicago. ROBERT E. STRICKLER, district principal of Elementary School District Number 4 of the public schools of St. Louis, Missouri. JESSIE TODD, teacher in the Laboratory Schools at the University of Chicago. STEPHEN M. COREY, professor of educational psychology and superintendent of the Laboratory Schools at the University of Chicago. GUSTAV J. FROELICH, supervisor of the Records Office in the Laboratory Schools and instructor in education at the University of Chicago. MARGARET PRITCHARD, teacher in the Laboratory Schools at the University of Chicago.

PROTECTING DEMOCRATIC VALUES IN A NATION AT WAR

NEWTON EDWARDS

University of Chicago

*

THERE is something deeply tragic about a democratic nation at war. When a democracy is required to take its place in the drama of war, it is forced to play a role for which it is ill fitted. One of the essential goals of democracy is peace, not strife; in the process of achieving its goals, democracy employs reason, not force. Before Pearl Harbor, while we were still debating on foreign policy with as much calm and restraint as circumstances would permit, some persons entertained the view that democracy would be so miscast in the drama of war that it would lose its essential character. I, myself, never had much patience with this view, but it cannot be denied that war will deepen the social conflicts, both within and between nations, which democracy must resolve. Neither can it be denied that war may very well have the effect of weakening some of the basic assumptions on which democracy rests and of making it difficult to employ the processes—the implements, so to speak—which democracy must use as it struggles toward the realization of its goals.

BASIC ASSUMPTIONS OF DEMOCRACY

I should like to call attention briefly to some of the basic assumptions of democracy—assumptions which war may tend to weaken. Democracy is more than a political system, more than a form of economic organization, more than a system of class arrangements. Over and above all these, it is a great faith, a faith in the humanity of man. Democracy cannot live if man loses his faith in man, and this faith must be broad enough to embrace all men everywhere. It may seem strangely contradictory to say that we must not lose faith in men even while we are bent on destroying them. Nevertheless, in the long run, democracy stands or falls on the correctness of

its assumptions with respect to the nature of man. It is precisely at this point that democratic ideology differs most widely from Nazi ideology. "We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain unalienable rights." We hold that man is not depraved by nature; that he is capable of achieving a sense of justice, equity, and good conscience; that he is capable of achieving a humaneness, a dignity, and a worth which all men should respect. I know full well that the manner in which this war is being conducted shakes to the very foundations our faith in humanity, or at least in a large part of it. This war cannot be fought without setting in motion currents of hate and righteous indignation which may sweep us away from our old moorings, but we must not permit the emotions of war to cause us to lose faith in the ultimate humanity of man.

It is also a fundamental assumption of democracy that men are capable of governing themselves, of managing their own affairs. Among us this idea is so taken for granted that it may appear too commonplace and platitudinous to mention, but this view of man's capacity has not always been taken for granted. It was, in fact, born only yesterday, so to speak; it is little more than a century old. Throughout the centuries men, even the masses of men who have suffered most from arbitrary power, have exhibited little enthusiasm for democratic government, little confidence in their own capacity to be captains of their own fate, to steer the boat into the port of their own choice. Government has been regarded, for the most part, as a matter to be taken care of by a viceroy of God, some divinely inspired leader, or a small directive class. Today a large part of mankind is willing to lay down its life in defense of systems of polity grounded on arbitrary power.

Now, war, even in the most advanced democracies, cannot be conducted without an immense concentration of political power. In nearly every area of life, decisions which ordinarily would be hammered out in the public forum must be intrusted to leaders. There is no other way. To some this necessity may appear to be a denial of democracy. I do not so regard it. The democratic state is not necessarily lacking in power, weak in the force of its sanctions, and impotent in crises requiring quick and positive action. The de-

cisive point is not the amount of power exercised but the source from which it is derived. Even so, we must not lose sight of the fact that, even in war, leaders are but the responsible agents of the people. We can ill afford to permit youth to lose a sense of civic duty, a part of which is to think for themselves and try to resolve public issues on the basis of their own best judgment. In the school, in community affairs, and in many areas of political action, therefore, we need to cultivate more assiduously than ever the processes of responsible democratic government. We need, also, to guard against glorifying the political party that is in power during the conduct of the war. On this point our own Civil War should teach us a lesson. After that war many good people in the South felt that to vote anything but the Democratic ticket would be little short of an insult to the memory of Robert E. Lee, and in the North perhaps an equal number for an equal length of time felt that to vote anything but the Republican ticket would be a repudiation of all for which Lincoln stood. We should not suffer loyalty to leader or party to blind us to the responsibility of intelligent citizenship.

It is also one of the assumptions of democracy that men, in the solution of their common problems, will be motivated by enough good will toward one another and loyalty to the commonweal to be able to reach a working compromise without resort to force and violence. In any society we may expect a clash of individual and class interests. Men will fight, and fight hard, to advance their personal interests, to win place and power. Groups and classes of men will organize and become articulate and pit their strength against one another. As Becker has pointed out, ideally democracy may be defined as government of the people, by the people, for the people; but in actual practice it often becomes "government of the people, by the politicians, for whatever pressure groups can get their interests taken care of."¹ Men will compromise their differences, at least to a tolerable degree, if they are not called on to sacrifice too much, to retreat on too wide a front. If, however, the compromise really strikes to the root of the matter, if it involves a fundamental

¹ Carl L. Becker, *Modern Democracy*, pp. 5-6. New Haven, Connecticut: Yale University Press, 1941.

redistribution of those things which men hold in high esteem—material goods, equality of opportunity, cultural resources, positions of power and prestige—then men may choose not to listen to the dictates of sweet reasonableness or to the promptings of the spirit of good will. Here we are dealing with an important matter because, if anything about the future is clear, it is this: if democracy is to survive in America and if a democratic world-order is to emerge and live, men will have to learn to compromise much and to yield at many points where they may be disposed to fight.

American life is characterized by sharp differences and inequalities which are out of harmony with our democratic ideals. In one way or another these inequalities must be made less sharp. For the moment the social conflicts in our culture are not acute for the simple reason that we cannot indulge in them at a time when the very life of the nation is at stake. But no student of history will suppose that war will permanently resolve these conflicts; in all probability it will only serve to deepen them.

Now we come to the heart of the matter. Individuals and social groups are little likely to resolve their differences unless they are motivated by certain core values, certain ethical and moral principles, some great imperatives. First of all, there must be a genuine respect for personality, for individual worth; men must be willing to meet one another on a fraternal basis. This necessity calls for the cultivation of minds that are sensitive to the rights and needs of others in whatever place and in whatever class, of minds that are sensitive to inequalities, injustices, and human exploitation in whatever form. More than that, there must be a willingness to translate sentiment into forms of co-operative action. In the second place, there must be the clear recognition that the gains of civilization are mass gains; there must be a devotion to the common welfare that will lift men out of their petty selfishness. Far too often we decide important matters of public and social policy in terms of what we shall get out of it—in terms of the benefits that will accrue to my business, my labor union, my school of thought, my university, or to me. There is no better way to protect democratic values in war or in peace than to provide our youth with those concrete experiences which will develop in them the motivations, drives, and sensitivities

necessary for the type of co-operative behavior in which they will be called upon to engage.

NECESSITY FOR SOCIAL UNDERSTANDINGS

It is also an assumption of democracy that the citizen will be informed, that his information will be both broad and precise enough to enable him to pass judgment on fundamental matters of public and social policy. As a matter of fact, the assumptions and processes of democracy are of little significance unless they are made manifest in the institutions of a people. Citizens may accept the basic assumptions of democracy and may be skilled in its processes and techniques, but they can achieve a democratic social order only through programs of social action. Men must employ institutional forms through which to realize the way of life that they deem best. Necessarily, they devise and experiment with political institutions; modify the structure and the operation of their economy; and, in the whole area of social relations, devise such institutional forms as time and circumstance may seem to dictate. The fundamental goals of democracy and many of its processes are enduring, but its institutional forms are subject to change and modification. Indeed, it is not too much to say that, if the democratic state is to survive in the modern world, it will have to cultivate the spirit of social invention and contrivance. As we proceed, in the years that lie ahead, with the reconstruction of society along more democratic lines, the assumptions of democracy may serve as a touchstone of statecraft; they may provide a standard for the evaluation of the structure and the operation of the economy; they may dictate the arrangements that will be made with respect to social classes; they may, in fact, be made the criteria for passing judgment on all proposals. But unless those who apply these criteria have adequate understanding of the social forces of their time, unless, for example, they understand the economy that they undertake to reconstruct, then efforts to achieve a democratic state will result in failure.

There is danger that we may overstress the goals and the processes of democracy, especially the processes, and that we may give too little attention to the cultivation of the knowledge required for the reconstruction of institutional forms. Some seem to think that train-

ing youth in the ideals and the processes of democracy is all that is necessary. It is important, to be sure, that youth acquire the skills of democratic action; but no end of serving on committees, no amount of participation in group discussion will take the place of the cultivation of social understandings. It is scarcely possible to hope that democracy will be preserved by merely developing loyalty to democratic ideals, by eliminating snobbery, or by creating attitudes of friendliness and helpfulness. The right attitudes, loyalties, and dispositions are important, but they are not enough. Neither will it be enough to cultivate the ancient virtues of honesty and sobriety, industry and thrift, tolerance and humaneness. It will not be enough, either, to develop a dogged determination to safeguard such liberties as free speech, freedom of the press, and freedom of religious worship. Finally, it will not be enough to develop integrated personalities—personalities free of destructive anxieties, conflicts, and neuroses. Over and above all these, it will be necessary to cultivate in youth, and in their elders as well, a deep insight into the workings of our economic, political, and social arrangements.

GOALS OF DEMOCRACY

Democracy has its basic assumptions and its processes; it also has fundamental goals, among which are liberty and equality. Democratic liberalism has placed great emphasis on freedom of the individual from political and social restraints. Certain liberties we have regarded as fundamental ends in themselves, as being essential to the democratic way of life. Among these are freedom of intellect and of teaching, freedom of speech, freedom of the press, freedom of conscience, and freedom to conduct one's economic life pretty much as one pleases. It has been fundamental in democratic ideology, and it remains fundamental, that the experience of the race shall be freely accessible to all who may care to profit from it, that no forbidden signs be placed along the avenues leading through all the reaches and depths of human experience, that freedom of inquiry and expression be cherished as a priceless heritage. Thomas Jefferson once exclaimed, "I have sworn upon the altar of God, eternal hostility against every form of tyranny over the mind of man."¹ No one knew

¹ *The Writings of Thomas Jefferson*, X, 175. Washington: Issued under the auspices of the Thomas Jefferson Memorial Association of the United States, 1905.

better than this son of a small farmer in back-country Virginia the history of the repression of common man by the possessors of authority, and no one went more directly to the heart of the matter than did Jefferson. We have built up bills of rights and an apparatus of civil liberties to protect the intellectual and moral integrity of the individual. These are values which we should cherish and teach our children to cherish. At the same time we should keep in mind that in times of crisis it may be necessary for the people to confer upon government whatever powers are required to preserve the life of the nation. As Lincoln once put it, "Measures otherwise unconstitutional might become lawful by becoming indispensable to the preservation of the Constitution through the preservation of the nation."¹

THE DILEMMA OF DEMOCRACY

Now we come to a knotty problem—the great dilemma which democracy everywhere must face. As has been said, it was a part of the faith of democratic liberalism that, if men enjoyed all the freedoms embraced in that faith, they would somehow in their everyday adjustments achieve a reasonable degree of equality. We are now beginning to realize that this is not true, that at least one of our cherished freedoms is incompatible with equality. It does not take a particularly discerning eye to observe that in a technological society freedom in the area of economic life spells inequalities of condition and of opportunity which no democracy can tolerate nor perhaps long survive. These inequalities are too familiar to require cataloguing; they intrude into nearly every aspect of life. To resolve this conflict between freedom and equality and to resolve it through democratic processes constitutes one of the most difficult problems which democratic leadership must solve. Basically the problem is one of distribution. Some way must be found by which the material and spiritual benefits accruing from an advancing technology may be equitably distributed among the masses of men. Apparently, to accomplish this end, men will have to submit to a considerable degree of social control in the area of economic life; they will have to forgo, in part at least, that freedom of action which has so long been regarded as one of the essential freedoms in the creed of democratic

¹ *Abraham Lincoln: Complete Works*, II, 508. Edited by John G. Nicolay and John Hay. New York: Century Co., 1894.

liberalism. Here we may expect to encounter two difficulties. First, those who occupy positions of advantage will not be easily persuaded to give up freedom of action when, by doing so, they may appear to be sacrificing their own self-interests. Second, it yet remains to be seen whether men can submit to a considerable degree of social control in the area of their economic life without also surrendering political freedom and other freedoms essential in a democracy. Yet as difficult as this problem is, it must be solved if democracy is to live. When the people fail to find their own way out of the woods of poverty, insecurity, and distress, into the open fields of relative economic and cultural well-being, they turn to some self-chosen leader to find the way for them.

Democracy as a political form has never yet gained much headway except in those areas which have been characterized by a relatively high standard of living or by the prospect of such a standard. It is no mere accident that today the democratic nations are the "have" nations and the undemocratic nations the "have-not's." To work out economic and political forms which will reconcile the conflict between economic freedom and equality of opportunity will require leadership and popular intelligence of a high order. Moreover, it will require good will among men and a deep devotion to the commonweal.

SOCIAL PROBLEMS—AN ELEMENTARY- SCHOOL FALLACY?

JOHN H. MARTIN AND O. J. LUPONE
Public Schools, Northport, New York

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THERE are in education many persons who, because they are imbued with the idea of using the schools as an agency for social change, have advocated that curriculum materials drawn from the controversial problems of adult life be used in the elementary schools. The writers have no quarrel with the use of the schools for social change; they are concerned merely with the type of materials suggested for accomplishing this objective. "Housing and Slums," "Machines," and "Conservation" are some of the more frequently mentioned titles of such curriculum units.

Child psychologists have repeatedly criticized the teaching of such abstract and remote topics to elementary-school children. Students of child development, particularly those who have studied the growth of understanding in six- to twelve-year-old children, have found that "the emphasis on the social studies sometimes seems primarily to consist in passing on to fledgling children social and economic problems of the adult world which adults themselves have difficulty in formulating, let alone solving."¹ The only concession made by the author quoted toward including curriculum content of social significance is that "it would be better to approach a topic by way of conditions known to the child in his own experience, rather than by way of abstract and remote terms or propositions."² Snatching at this suggestion with the frantic clutching of those who find their intellectual foundations disappearing, advocates of the teaching of national problems have perverted the quotations given above. They have done this by recommending the study of controversial

¹ Arthur T. Jersild, *Child Psychology*, p. 336. New York: Prentice-Hall, Inc., 1940 (revised).

² *Ibid.*, p. 357.

issues apparent in each local community. Their reasoning has been based on the naïve assumption that, because material was geographically close, it was also "close" to the experience of the child.

The writers arrived at this conclusion as the result of their efforts to teach a unit dealing with local manifestations of the national problem of conservation. A group of teachers met co-operatively to develop the unit. We assumed that, by dealing with local issues, we should overcome the objection that national problems are too remote from the everyday experience of children. We then determined some of those local activities in which the ideas of conservation could play a part.

We found that in many respects our community had problems similar to those of other villages. For instance, Oklahoma has its dust bowl, but the use and abuse of land by our farmers duplicated, in many ways, conditions of the Middle West. On the other hand, we found specific activities which were somewhat local in their nature, for instance, a harbor, a sand and gravel pit.

A unit on "Conservation of Our Resources" was taught at the sixth-grade level to a group of thirty-two pupils whose intelligence quotients ranged from 94 to 122. After a brief discussion of what conservation means in terms of thrift and saving, the pupils asked, "How are local resources being used?" These resources were found to be a sand and gravel pit, the harbor, potato-farming, and water supply. The pupils decided that they would find out, to their own satisfaction, whether or not these resources were being used wisely. On the basis of interest, the children formed themselves into groups to study these areas. In order to gather information, each group interviewed informed persons, wrote letters, and called in speakers. In this way the pupils gathered a great deal of information.

The entire unit was evaluated by use of the following techniques: pupil diaries, in which each child kept a day-by-day record of his work and his attitude toward it; anecdotes kept by the teacher of significant pupil behavior and comment; tests; and observation of the class by the supervisor.

We found that some children responded in a very self-centered manner. When the class was considering the aesthetic contribution

of the sand and gravel pit to a residential area, one pupil said, "It's ugly." Another pupil, with whom the class agreed, retorted, "Who cares? It is not near my house." When one of the children in the class pointed out that his father worked at the sand and gravel pit, the class was satisfied that the sand and gravel pit was a good thing. When another child whose house neighbored the pit parroted her parents' objections to the pit's effect on the property value, the class decided that this argument concerned adults only. If, as in some instances, the pupils took sides, their conclusions were likely to be formed on the basis of the popularity of the first child to speak and not on the merits of the evidence given. All these anecdotes were recorded in spite of the fact that these same children presented or heard a great amount of informational material.

We discovered that the children could not identify their interest in any problems with which they individually were not immediately concerned. A child whose father owned farming land was interested in methods of plowing which might lead to erosion. The child of a neighbor whose property suffered as a result of this practice could recognize that a quarrel existed between his father and his classmate's father, but neither child could understand that the community might be concerned, even though the situation was common in the area. The class as a whole saw no need to be troubled with an issue which, in their thinking, did not involve them.

This lack of interest was due not to mental incapacity but rather to failure to understand that an issue existed. In phases of their science work these same children had demonstrated with simple science experiments that they could make observations and record their findings in a sensible fashion. In the field of science they could see an objective which gave meaning to their problem. On the other hand, their failure to "see" community problems made them unable to assemble their information in any logical form in spite of all the aid that the teacher's skill could give.

In all the problems which these children handled—the sand and gravel pit, water supply, farm land, etc.—the organizing principle was the determination of how the interests of the total population were being served. The incapacity of these children to understand the concept of a community involving groups with overlapping in-

terests left them inadequately prepared. We felt that this explanation indicated why those children who did not have immediate contact with a problem would consider that a personal like or dislike for the pupil making a report was a sufficient reason for their conclusions. Since the abstract principle, the general welfare, was unknown to them, they could not identify themselves with it. They could understand the interests of a particular playfellow but not those of the general public. Hence they could not feel themselves a part of a group of which they had no recognition. In one instance, however, they were able to recognize their interest because of personal experience.

When the harbor was discussed, it was found that swimming there was dangerous because of the pollution^{*} caused by yachts. Here was a condition from which they all suffered. Their interest was immediately aroused to the point where they were anxious to determine what could be done. Further investigation revealed that the local storekeepers and merchants were dependent on the trade brought in by the yachts for a significant share of their business. The issue was immediately joined: if the yachts came into the harbor, the children could not swim. Here was a problem with which all were immediately concerned; it was within their experience. Here was the clue which revealed to us the basic reason for the failure of other topics to be understood as community problems; for here was an issue which not only was geographically close but was psychologically significant. At this point the recorded conversations were revealing:

"The storekeeper has to have his business."

"We have to swim if we are going to stay healthy."

"Yeh, but how are you going to get healthy in dirty water?"

"We have to have stores, and Mr. Smith says that he would not be able to stay in business without the money that the summer people bring."

Here the class decided that they would go back to the adults of the community for further questioning. As a result of this activity

^{*} It is interesting to note one of the unexpected experiences which developed through the pupils' attempt to determine the cleanliness of the harbor water. The County Board of Health answered their inquiries with evasive statements, probably because of the commercial complications involved. Looking for an authoritative answer, the children were definitely puzzled. A local chemist supplied the desired information.

the committee appointed came back with two questions: "Can the yachts use the harbor without polluting it?" "Are there other swimming places as easily and cheaply available?" With the discussion so pointed, the children continued with:

"The yachts can't go to some other place to dock."

"There are lots of other places; but, if they go, our storekeepers will lose most of their business."

"We can swim anywhere along the shore."

These statements reveal in part the remarkable conclusions which the children reached. They could, at a little inconvenience, continue to satisfy their wants. Their recognition of this altruistic solution indicated their understanding of the larger interests of the community. In no other instance was there achieved even this small degree of understanding of the fact that the interests of conflicting groups must give way to the community good.

Because of the subjective nature of this report, it is necessary to supplement the suggestive conclusions with more comprehensive objective research. Certainly these findings suggest that curriculum-makers should be judicious in their selection of adult problems that are to be presented to the elementary-school child. A topic which is close to the area of the school is more likely to be successfully taught than is a subject which is distant. The only assumption with which our conclusions differ is that all subjects drawn from the immediate vicinity of the school are of significance to the mind of the child. The children, in their study of the harbor problem, learned that there are groups with conflicting interests which could be resolved only in terms of the welfare of the entire community; that is, the children learned of contending groups. One of the questions left unanswered is: Would such learning have sufficient power to be transferred to other local issues in which the children do not have so immediate an interest? Until such time as more precise experimentation indicates that this transfer will take place, the writers suggest that care be employed in attempts to make the school program meaningful by using local material without discrimination.

BUILDING SENTENCES BY USING MODELS

JOHN H. TREANOR

Washington Irving School, Roslindale, Massachusetts

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THE composition of good sentences is a difficult phase of English work, hard to teach and hard to learn. Aside from the organization of ideas, aside from the embarrassment of selecting the right word for the right place, there arises in the English class the problem of the construction of the sentence itself. Unhappily, many teachers of English, in demanding a paragraph, forget that to make such a composition one must use sentences and that, while good sentences in themselves do not necessarily make good paragraphs, no good paragraph was ever written that did not have in it a great proportion of good sentences. Teachers are tempted to say, "Write a composition," long before their pupils are able to write a sentence. Hence the program in English composition ought to lay great stress not so much on whole compositions but on the parts that compose them, not on paragraphs but on sentences.

The following lessons were developed to solve, if possible, one angle of this difficulty.

The authors of English literature have at their command a copious variety of frequently used sentence patterns which are common to them all. No matter how individual an author's style may be, he occasionally casts his thoughts into a construction of wide use and general acceptance. Careful writers avoid an inartistic repetition, but they cannot avoid an occasional use of one or another of these forms. Sometimes with a pleasing variation, like a graceful turn of music, they put a unique mark on a familiar pattern, but they nevertheless draw on the common treasury, as it were, of English expression.

Washington Irving, for example, used almost too frequently the following construction, quoted from *The Sketch-Book*: "The ships of war, that prowled like guardian giants along the coast; the head-

lands of Ireland, stretching out into the channel; the Welsh mountains, towering into the clouds; all were objects of intense interest."¹ The construction is familiar: several related ideas cast into phrases similar in form are summed up and united in the word "all," which adjoins the predicate of the entire sentence. Scott, Dickens, Thackeray, Newman—all made use of this device. It is easy to write; tends to a desirable concentration of words; and, from the practical classroom point of view, is not difficult to teach.

The core of the attempted solution of the problem of teaching children to write sentences, then, is to put models of frequently used constructions before a class, with the purpose of making such sentence patterns so familiar that ultimately the pupils' work will reflect them. Any one of a score of familiar constructions might have been used, but for the first practical work with a class the type quoted above was selected.

In a seventh-grade class a lesson was given at the blackboard, with the following sentence as a working model: "The whistle of the referee, the thump of the boot, the roar of the crowd—all announced the beginning of the football game." Here was Washington Irving's model in a simplified form. The pupils readily saw the triple subjects: "whistle," "thump," "roar"; they noted the identity of construction of the three adjective phrases "of the referee," "of the boot," "of the crowd"; and they recognized the suspension of thought until the word "all," which co-ordinated the subjects.

The model being thoroughly understood, it was easy to obtain from the class a number of imitations on subjects suggested by the teacher. Then pupils were asked to write a sentence or two on their own subjects, and several like these were readily obtained:

The sound of the guns, the thump of the stagecoach, the yell of the bystanders—all announced the arrival of Tom Mix.

The rustling of the palms, the splintering of the bamboo, the growls of the tiger—all announced the arrival of the tiger.

Both these imitations contained errors which were quickly apparent to the class. "Thump," obviously not the right word, was changed to "roar." In the second sentence, the third phrase was changed to

¹ Washington Irving, "The Voyage," *The Sketch-Book of Geoffrey Crayon, Gent.*, p. 26. New York: G. P. Putnam's Sons, 1864 (revised).

"the growls of the beast," the word "tiger" being reserved for the end of the sentence.

By way of home work, the pupils were asked to write four or five sentences similarly constructed and based on their own ideas. Certain minor errors appeared in these papers. For example, in the sentence: "The darkness of the sky, the whiteness of the ground, the shouts of the children—all announced the arrival of the snow," it was apparent to most of the class that the phrase referring to the children was an incongruous note, which ought to be changed to something like "the whistling of the wind" in order to keep the three subjects in the same category. Again, one or two more intelligent pupils were able to see that in a sentence like this: "The moo of the cow, the whinny of the horse, the onk [*sic*] of the pig—all made a welcome noise on the farm," each separate subject was addressed to the ear; and they saw, too, that it is possible to write a sentence with the first part addressed to the eye, the second to the ear, etc. Variations in the predicate were likewise admitted: ". . . all proclaimed the storm," ". . . all were objects of delight," ". . . all made the day happy."

After a few days this construction became familiar to the class, and there remained only the prospect of finding it in pupils' compositions. While some of the boys and girls found it difficult to introduce the construction into a simple paragraph of personal incident, others were able to do so without trouble. The following are fair samples.

One cold morning, when you could feel the frost nibbling at your cheek, some other boys and I decided to have a snow battle. The whizzing of the snowballs, the yelling of the boys, the attack of the enemy—all announced the struggle.

My brother and I had just begun to doze off when the thought of waiting for Santa Claus took hold of me. We waited and waited, but still no noise did we hear. Suddenly, the scrape of the runner, the neigh of the reindeer, the patter of hoofs—all told us of the presence of Santa.

For composition work the use of such an imitation was clearly an advance. It was pleasing to note the conscious power which the pupils were able to enjoy.

After a series of short daily lessons, it was felt that the model,

based rather loosely on Washington Irving, had been assimilated by the class. Then other models were used in a similar way. For example, the following are stock patterns in the body of English literature, and not one is beyond the ability of seventh-grade pupils: (1) "In the sky the birds were singing; on the sea the waves were flashing." (2) "Filled with envy and remorse, Godfrey sank upon his knees." (3) "With a joy that was spontaneous and a cry that was profound, the wanderer gazed upon his home."

If, in the course of a year's work in English, a pupil gained command of a dozen or fifteen of these sentence patterns, he would show great skill in composition. It is acknowledged that a certain artificiality can creep into paragraphs. Nevertheless, too many able writers have acknowledged their debt to the great masters of prose to justify scorning such an approach. As Stevenson said of composition:

Before he can tell what cadences he truly prefers, the student should have tried all that are possible; before he can choose and preserve a fitting key of words, he should long have practiced the literary scales; and it is only after years of such gymnastic that he can sit down at last, legions of words swarming to his call, dozens of turns of phrase simultaneously bidding for his choice, and he himself knowing what he wants to do and (within the narrow limit of a man's ability) able to do it.¹

The philosophy of life is ever the teacher and the pupil, the master and the apprentice, the father and the son; English teachers might well profit by this business of model and imitation.

¹ Robert Louis Stevenson, *Learning To Write*, pp. 5-6. New York: Charles Scribner's Sons, 1888.

STABILITY OF INTELLIGENCE QUOTIENTS OF METROPOLITAN CHILDREN OF FOREIGN- BORN PARENTAGE

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*

THE difficulty in obtaining reliable estimates of the intelligence quotients of primary-grade children, especially those in the first term of Grade I, is well known. This difficulty is magnified when children come from homes of low socio-economic status and when foreign-born parents use the foreign language for conversation in the home. The authors of this report are officers in a school faced with the problem of adapting the curriculum to pupils of foreign-born parentage. The data for this study were gathered from this school.

PURPOSE OF STUDY

The design of this study¹ was to obtain the coefficient of correlation between the intelligence quotients secured for children who were tested at the following grade levels of their school careers: Grades I A, IV A, VI A, and VIII A. The Pintner-Cunningham Primary Mental Test was used at the first-grade level. At the higher levels the Henmon-Nelson Test of Mental Ability was administered. Despite the fact that these tests may measure somewhat different aspects, or factors, of intelligence or academic aptitude, the results provide a rough index of the stability of the intelligence quotient as the children progress through school.

THE SCHOOL POPULATION AND THE NEIGHBORHOOD

Public School 176, Brooklyn, has a school population of about nineteen hundred pupils, 99 per cent of whom are Italians. The remaining 1 per cent includes Scandinavian children, a sprinkling of Irish children, and a few Jewish children.

¹ Valuable assistance in planning the study and checking the data was given by J. Wayne Wrightstone, of the Bureau of Reference, Research and Statistics, New York City school system.

The predominant language in the homes of the pupils is Italian. The children have little literary and cultural background. Home libraries are practically nonexistent. An experiential background for the language arts is almost totally lacking. Many of the new entrants in the kindergarten or Grade I A speak little or no English. In social and economic status the neighborhood is underprivileged. There are few park and play facilities, and the nearest public library is a mile and a half from the school. Most of the parents read Italian newspapers.

The houses are generally two-family buildings, although there are a few apartment houses. In a considerable number of the families, both fathers and mothers work, and there is no provision for a day nursery to take care of the children. There are many broken families in the neighborhood. About four hundred children receive free lunches daily. Despite all these unfavorable factors, the attendance at the school is exceptionally good, and there is little delinquency.

STABILITY OF THE INTELLIGENCE QUOTIENT

Under these conditions many of the teachers have felt that the test of mental ability administered in Grade I A provides unstable indices of intelligence. They have felt that language difficulties militate against accurate results and that the intelligence quotients secured in Grades IV A, VI A, and VIII A are more reliable and more stable, since the pupils have had the advantage of four, six, and eight years of school training. It was to prove the correctness or the falsity of these observations that this study was undertaken.

The intelligence quotients of the pupils, as recorded in Grades I A, IV A, VI A, and VIII A, were listed. These data were obtained from the cumulative-record cards. Thus a normal school situation was used. The Pearson product-moment formula was employed to find the coefficients of correlation between the intelligence quotients for pupils at the various grade levels.

The correlations in Table 1 indicate that intelligence quotients at early grade levels are more unstable than are those obtained at upper-grade levels. The correlation of .46 indicates that a considerable shifting of intelligence quotients has occurred between Grade I A and Grade IV A. The instability of the intelligence quotients over the three years leads to the inference that, if more

accurate estimates of intelligence are to be obtained, tests should be administered at more frequent intervals, probably under optimum conditions at each succeeding grade level. The coefficients of correlation obtained for the upper grades are relatively high and indicate a rather stable condition in estimating intelligence quotients.

The mean intelligence quotients and the standard deviations at the various grade levels are presented in Table 2. These results

TABLE 1
CORRELATION COEFFICIENTS BETWEEN INTELLIGENCE QUOTIENTS OBTAINED FROM CHILDREN AT VARIOUS GRADE LEVELS IN THEIR SCHOOL CAREERS

Grades Correlated	Number of Pupils	Coefficient of Correlation
I A and IV A.....	174	.46
IV A and VI A.....	57	.81
VI A and VIII A.....	60	.85
IV A and VIII A.....	54	.83

TABLE 2
MEAN AND STANDARD DEVIATION OF INTELLIGENCE QUOTIENTS OBTAINED FROM CHILDREN AT VARIOUS GRADE LEVELS

Grade	Mean Intelligence Quotient	Standard Deviation
I A.....	104.5	13.1
IV A.....	90.6	13.4
VI A.....	101.6	11.7
VIII A.....	101.7	15.8

should not be interpreted to mean that these intelligence quotients and their variability are representative of the school because the pupils selected for this study represent a group for whom data happened to be available on the cumulative records. It is, therefore, possible that the group for whom intelligence-quotient data were available is not a representative sampling of the pupils in the school. These data provide some additional information by which one may interpret the coefficients of correlation. The intelligence quotient for

Grade VI A shows relatively less variability than that for any of the other grades. Grade VIII A shows the most variability.

SUMMARY COMMENTS

A summary of the findings indicates that there is a fairly high degree of correlation, and hence stability of the intelligence quotient, in the case of pupils tested in Grades IV A, VI A, and VIII A. On the other hand, a lower degree of correlation is found between the intelligence quotients obtained for pupils in Grade I A and the intelligence quotients obtained for the same pupils in Grade IV A. The tentative conclusion drawn from these data is that, in the case of pupils of foreign-born parentage living in a metropolitan neighborhood of low socio-economic status, the stability of the intelligence quotient at the first-grade level tends to be so variable that the need for annual administration of intelligence tests seems to be indicated if up-to-date intelligence quotients are to be available for such pupils. The instability may be, and probably is, caused mainly by the language handicaps and by the home and community conditions in which these children live. After the fourth-grade level, however, the relative positions or ranks of the intelligence quotients of these pupils tend to remain more stable and constant. The predictive value of the intelligence quotient after this level, therefore, is valid for school use for a longer period than it is at a lower grade level, particularly for groups of pupils similar in character to those involved in this study.

There is a need for a study which would follow the stability of the intelligence quotients from Grade I through to the higher grades for pupils who come from various types of neighborhoods and various types of home backgrounds in order that the points may be determined at which the intelligence quotients tend to remain relatively stable or constant. This study can be made only by instituting an annual testing program and collecting records over a period of six or eight years of the children's school life.

It may be that the low correlation shown between the intelligence quotients obtained in Grades I A and IV A is the result of lack of uniformity in administering the tests of mental ability or that there is need for more skill in the administration of tests at these levels.

EDUCATIONAL ATTAINMENT OF URBAN YOUTH IN VARIOUS INCOME CLASSES. I

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AND

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ALTHOUGH it has been generally recognized that there are differences in the educational achievement of the various socio-economic classes, this recognition has been founded largely on assumption. The few studies published have dealt with the problem as it was encountered in individual cities and then in a more or less indirect manner.² The present article is based on a survey of eighty-three cities, and it relates educational status directly to annual family income. However, because of the broad classification of some of the basic data, the analysis is still far from being completely satisfactory.

The data were taken from the National Health Survey conducted by the United States Public Health Service during the winter of 1935-36. The survey was designed primarily to secure data on the health of the nation in relation to various socio-economic factors, two of which were income and education.³ Since the main emphasis

¹ From the Division of Public Health Methods, National Institute of Health.

² The outstanding study is that by Richard O. Lang, *The Relation of Educational Status to Economic Status in the City of Chicago, by Census Tracts, 1934*. Chicago: Private edition, distributed by the University of Chicago Libraries, 1937.

The author related educational status (grades completed) to the census tracts of Chicago, the latter having been ranked on the basis of median equivalent monthly rentals.

³ The survey was carried out by means of a house-to-house canvass. Information was obtained by interview with some responsible member of the family, usually the housewife. The requested information included, in addition to data on illness and medical care, the following population and economic data: age, sex, nativity, race, marital condition, occupation, employment status, and education of the individuals, and annual income of their families. For a complete discussion, see George St. J. Perrott, Clark Tibbitts, and Rollo H. Britten, "National Health Survey: Scope and Method of the

was on health, it is natural that the related factors would be expressed in a general way.

This article deals with the educational attainment of individuals of 20-24 years of age and individuals 15-19 years of age in 1936. The majority of the older age group either were attending college or had completed their education, while persons in the younger group were chiefly of high-school age. These individuals are classified according to sex and color. The color classification is by "white" and "colored," the latter term referring primarily to Negroes. (The Negro youth constituted about 95 per cent of the colored youth.)

Educational attainment was considered to be the highest grade (for elementary school) or the type of school (for high school and college) that an individual had entered even though he had not necessarily completed it. Persons still attending school were, therefore, classified according to the grade or the type of school which they were attending on the day of the enumerator's visit, while persons not attending school were classified according to the highest grade or type of school which they had attained. The actual grade was stated for elementary schooling. Obviously an individual who had attained Grade VIII had completed at least Grade VII. For "high school," which included business and vocational schools, and "college," the attained grade was not specified. As a result no more may be stated about a person who attained high school or college than that he had at least some high-school or college training.¹ The fact that all grades of high school were classed as "high school" and all grades of college were classed as "college" undoubtedly restricts the interpretations to be made from the data, since it is at these educational levels that the socio-economic differences in education mainly occur.

The analysis is based on data concerning 423,000 urban youths, of

Nation-wide Canvass of Sickness in Relation to Its Social and Economic Setting," *United States Public Health Reports*, LIV (September 15, 1939), or Reprint No. 2098. The survey was made with the aid of grants from the Work Projects Administration, Official Projects 712150-658/9999 and 765-23-3-10.

¹ For further details see B. D. Karpinos, *The Socio-economic and Employment Status of Urban Youth in the United States, 1935-36*. Public Health Bulletin No. 273. Washington: United States Public Health Service, 1941.

whom 381,000 were white and 42,000 were colored. The sample probably contains a slight over-representation of youth from the larger cities.¹

The economic status of these youths is measured by the annual income of their families. "Family," as defined by the survey, included the head of the household and all persons in the household related to him by blood, marriage, or adoption. "Income of family" was defined to include the combined salaries, wages, business profits, and net income from investments received by all members of the family during the year preceding the survey as well as the family receipts from boarders and lodgers.² Families were not asked to report the exact amount of income but to designate which of several income intervals best described their situation. Families in which one or more members were identified as having been recipients of public assistance (such as work relief, direct relief, mothers' pension, or pension for the blind) at any time in the twelve months prior to the day of the visit were classified as "on relief," irrespective of actual income. However, there were very few families on relief who had an annual income as large as a thousand to fifteen hundred dollars; almost all the relief families were in the "Under \$1,000" income category. For general orientation, the distribution of the youth by

¹ The total surveyed urban population comprised about two and a half million persons (two and a quarter million white and a quarter-million colored persons) in eighty-three cities of eighteen states. The cities were selected so as to furnish representativeness of the urban population in the main geographic divisions of the United States: Northeast, North Central, South, and West. To minimize as much as possible any overweighting that could be caused by the larger cities (when the survey was considered as a unit or by regions), a proper equalizing sampling procedure was applied in the larger cities, while in cities with less than one hundred thousand inhabitants, complete coverages were made. The list of the surveyed cities, arranged by regions, will be given in the second article of this series.

² Boarders and lodgers, who were designated as unrelated persons, constituted about 6 per cent of the total white youth and 8 per cent of the total colored youth. Their income was not known, and they were included in the income classification of the families with whom they boarded or lodged. No attempt was made here to exclude the unrelated persons, though they were excluded in the study on the employment status of youth (B. D. Karpinos, *op. cit.*), since it was found in this case an unnecessary refinement.

annual family income is presented in Tables 1 and 2, for white and colored youth, respectively.¹

TABLE 1

PERCENTAGE DISTRIBUTION OF WHITE URBAN YOUTH, AGE 15-24, ACCORDING TO ANNUAL FAMILY INCOME, BY AREA, 1935-36

Annual Family Income*	All Areas	Northeast	North Central	South	West
Number of persons	381,344	148,376	131,264	54,470	47,234
Under \$1,000 (relief and non-relief)	39.2	37.4	40.2	41.9	38.4
\$1,000-\$1,999	40.9	41.5	41.4	39.0	39.8
\$2,000-\$2,999	12.6	13.6	12.0	11.0	13.3
\$3,000 and over	7.3	7.5	6.4	8.1	8.5

* Based on known income only.

TABLE 2

PERCENTAGE DISTRIBUTION OF COLORED URBAN YOUTH AGE 15-24, ACCORDING TO ANNUAL FAMILY INCOME BY SOUTH AND NON-SOUTH, 1935-36

Annual Family Income*	All Areas	South	Non-South
Number of persons	41,883	24,126	17,757
Under \$1,000 (relief and non-relief)	84.1	91.1	74.6
\$1,000 and over	15.9	8.9	25.4

* Based on known income only.

EDUCATIONAL ATTAINMENT OF WHITE YOUTH

The educational attainment of white youth, aged 20-24 and 15-19, in each economic class, subdivided according to sex, is given in Tables 3 and 4. The data of Table 3 are also shown in Figure 1.

It is obvious that a direct relation exists between family income and the amount of education received by the individual, since progression in educational attainment is noted as income increases in all the age and sex groups. The first significant difference to be noticed is in Grade VIII. For males of 20-24 years of age, the percentage of

¹ For more details, see B. D. Karpinos, *op. cit.*

those who attained at least eighth-grade education ranges from 83.4 in the relief group to 98.8 in the group with incomes of \$3,000 and over. For females of this age the corresponding percentages range

TABLE 3

CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL
ATTAINMENT, OF WHITE URBAN YOUTH, AGE 20-24, IN
VARIOUS INCOME CLASSES, BY SEX, 1935-36

GRADE OR TYPE OF SCHOOL	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER						
	All Incomes	Under \$1,000 (Relief and Non-relief)			\$1,000- \$1,999	\$2,000- \$2,999	\$3,000 and Over
		Total	Relief	Non- relief			
Male:							
Kindergarten, Grade I or II*.....	99.8	99.7	99.7	99.7	99.9	99.9	100.0
Grade III.....	99.7	99.6	99.4	99.6	99.9	99.9	100.0
Grade IV.....	99.6	99.5	99.2	99.5	99.8	99.9	100.0
Grade V.....	99.2	98.7	98.2	98.9	99.7	99.8	100.0
Grade VI.....	98.5	97.3	96.3	97.9	99.4	99.7	99.9
Grade VII.....	96.7	94.1	92.0	95.6	98.2	99.0	99.6
Grade VIII.....	92.8	87.7	83.4	90.8	95.3	97.4	98.8
High school.....	77.1	66.4	55.7	74.1	81.3	87.0	93.0
College.....	18.2	10.4	3.6	15.3	18.6	25.8	43.1
Female:							
Kindergarten, Grade I or II.....	99.9	99.8	99.8	99.7	99.9	99.9	100.0
Grade III.....	99.8	99.7	99.6	99.6	99.9	99.9	100.0
Grade IV.....	99.7	99.5	99.3	99.5	99.9	99.9	100.0
Grade V.....	99.4	98.9	98.5	99.1	99.7	99.9	99.9
Grade VI.....	98.8	97.8	97.0	98.2	99.4	99.7	99.7
Grade VII.....	97.1	94.6	92.5	95.8	98.3	99.3	99.2
Grade VIII.....	93.5	88.4	84.3	90.8	95.7	98.0	98.4
High school.....	78.3	68.0	58.1	73.9	81.9	88.8	90.2
College.....	13.8	7.7	2.8	10.7	13.2	21.5	33.0

* The difference between 100.0 per cent and the percentage of persons who attained the lowest grade represents the percentage of persons who never attended school.

from 84.3 to 98.4. At the high-school level the corresponding percentages are 55.7 in the lowest income group and 93.0 in the highest income group, for males; and 58.1 and 90.2, for females. The differences are more pronounced with respect to college, as the percentages of those who attained college range from 3.6 to 43.1 for

males, and from 2.8 to 33.0 for females, at the two extremes of the income scale.

In the 15-19 age group the percentages of those who attained eighth-grade education range from 84.2 in the relief group to 98.8 in

TABLE 4

CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL
ATTAINMENT, OF WHITE URBAN YOUTH, AGE 15-19, IN
VARIOUS INCOME CLASSES, BY SEX, 1935-36

GRADE OR TYPE OF SCHOOL	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER						
	All Incomes	Under \$1,000 (Relief and Non-relief)			\$1,000- \$1,999	\$2,000- \$2,999	\$3,000 and Over
		Total	Relief	Non- relief			
Male:							
Kindergarten, Grade I or II.....	99.8	99.8	99.7	99.9	99.9	99.9	99.8
Grade III.....	99.7	99.6	99.4	99.8	99.9	99.9	99.8
Grade IV.....	99.6	99.3	99.0	99.6	99.9	99.9	99.8
Grade V.....	99.3	98.6	98.1	99.1	99.8	99.9	99.7
Grade VI.....	98.6	97.3	96.4	98.2	99.4	99.8	99.6
Grade VII.....	96.8	94.1	92.2	96.1	98.4	99.4	99.3
Grade VIII.....	93.0	87.6	84.2	91.3	95.9	98.2	98.8
High school.....	83.1	73.7	67.2	80.8	87.5	92.7	95.9
College.....	5.8	2.9	1.0	5.0	5.8	9.3	16.9
Female:							
Kindergarten, Grade I or II.....	99.9	99.8	99.8	99.9	99.9	99.9	99.9
Grade III.....	99.8	99.7	99.6	99.8	99.9	99.9	99.9
Grade IV.....	99.7	99.6	99.4	99.8	99.9	99.9	99.9
Grade V.....	99.5	99.2	98.9	99.6	99.8	99.8	99.8
Grade VI.....	99.1	98.3	97.8	99.0	99.6	99.7	99.7
Grade VII.....	97.9	96.0	94.8	97.3	99.0	99.4	99.4
Grade VIII.....	95.0	91.1	88.5	93.7	97.1	98.5	98.8
High school.....	85.1	77.5	71.6	83.3	89.0	92.6	93.7
College.....	5.9	3.4	0.8	5.9	5.5	9.6	15.9

the highest income group, for males; and from 88.5 to 98.8, for females. For high school the range is from 67.2 per cent to 95.9 per cent for males, and from 71.6 per cent to 93.7 per cent for females. No comparison is made for college since a large proportion of youth aged 15-19 is still in high school.

Comparison of the differentials in education by income for the 15-19 and the 20-24 age groups indicates that at every level of schooling the attainment of each of the lower income groups of age 15-19 approaches more closely to that of income group "\$3,000 and Over" than is the case for the 20-24 group. The indication would seem to be either that distinctions in income had come to have a lesser bearing on educational attainment among the group that entered school five years later or that the depression had kept a greater

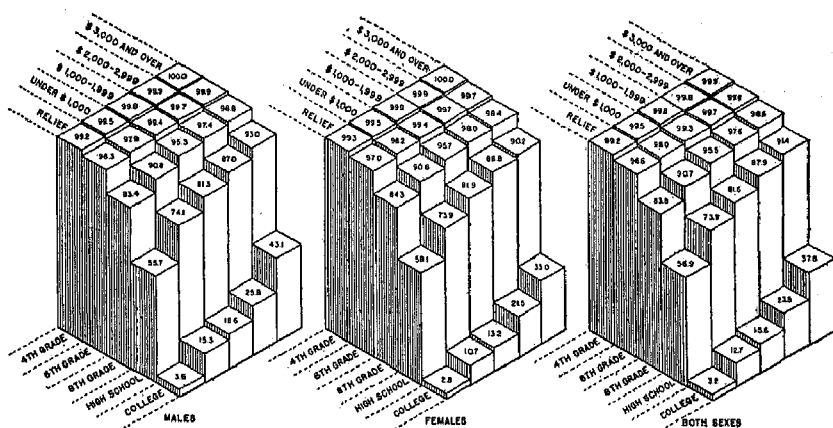


FIG. 1.—Percentages of white urban youth, age 20-24, in various income classes, who had attained specified grade or higher in 1935-36 (based on Table 3).

proportion of youth in school and had, therefore, lengthened the period of school attendance.

The often stated fact that the educational level of females exceeds that of males at every grade except college is corroborated by the present material (Tables 3 and 4). For the "All Incomes" group, at age 15-19 a larger proportion of females attained each grade, while at age 20-24 the only important exception is in the proportion attaining college. With a few exceptions in which the differences are insignificant, this finding apparently holds true for all income groups.

In all probability the differences in the educational achievements of the various income groups are much greater than these percentages indicate, since greater proportions of youth in the lower income groups undoubtedly leave high school before completing the full

course. With respect to college, the opposite may be true: owing to many selective factors,¹ a larger percentage of youth in the low in-

TABLE 5

CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL ATTAINMENT, OF COLORED AND WHITE URBAN YOUTH, AGE 20-24, IN VARIOUS INCOME CLASSES, BY SEX, 1935-36

GRADE OR TYPE OF SCHOOL.	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER									
	Colored					White				
	All In- comes	Under \$1,000			\$1,000 and Over	All In- comes	Under \$1,000			\$1,000 and Over
		To- tal	Re- lief	Non- relief			To- tal	Re- lief	Non- relief	
Male:										
Kindergarten, Grade I or II.....	99.0	98.8	98.7	98.9	99.8	99.8	99.7	99.7	99.7	99.9
Grade III.....	97.4	97.0	97.2	96.8	99.7	99.7	99.6	99.4	99.6	99.9
Grade IV.....	95.8	95.2	95.2	95.1	99.4	99.6	99.5	99.2	99.5	99.9
Grade V.....	88.4	86.9	88.0	86.0	96.8	99.2	98.7	98.2	98.9	99.8
Grade VI.....	79.5	76.8	79.6	74.7	93.9	98.5	97.3	96.3	97.9	99.6
Grade VII.....	68.8	65.1	68.5	62.6	88.0	96.7	94.1	92.0	95.6	98.6
Grade VIII.....	57.0	52.6	56.1	50.1	79.5	92.8	87.7	83.4	90.8	96.2
High school.....	46.1	41.5	41.7	41.3	69.6	77.1	66.4	55.7	74.1	84.0
College.....	6.1	4.7	2.2	6.4	13.4	18.2	10.4	3.6	15.3	23.3
Female:										
Kindergarten, Grade I or II.....	99.2	99.1	98.9	99.1	99.8	99.9	99.8	99.8	99.7	99.9
Grade III.....	98.1	97.8	97.7	97.8	99.7	99.8	99.7	99.6	99.6	99.9
Grade IV.....	97.1	96.6	96.4	96.7	99.4	99.7	99.5	99.3	99.5	99.9
Grade V.....	91.7	90.4	91.2	90.0	98.0	99.4	98.9	98.5	99.1	99.8
Grade VI.....	83.8	81.6	83.3	80.6	94.9	98.8	97.8	97.0	98.2	99.5
Grade VII.....	74.0	71.0	73.6	69.5	89.5	97.1	94.6	92.5	95.8	98.6
Grade VIII.....	62.9	59.2	61.7	57.7	82.4	93.5	88.4	84.3	90.8	96.5
High school.....	51.8	48.2	46.4	49.3	70.6	78.3	68.0	58.1	73.9	84.3
College.....	5.9	4.4	2.7	5.3	14.1	13.8	7.7	2.8	10.7	17.4

come groups than of youth in the higher income classes may graduate. Even subject to these limitations, the data clearly indicate the

¹ For a discussion of the influence of the depression on the proportion of college entrants that remained to graduate, see Emery M. Foster, *Survival Rates of Pupils*. United States Office of Education Circular No. 193.

wide variations in the educational level of white youth in the various income groups.

TABLE 6

CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL ATTAINMENT, OF COLORED AND WHITE URBAN YOUTH, AGE 15-19 IN VARIOUS INCOME CLASSES, BY SEX, 1935-36

GRADE OR TYPE OF SCHOOL	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER									
	Colored					White				
	All In- comes	Under \$1,000			\$1,000 and Over	All In- comes	Under \$1,000			\$1,000 and Over
		To- tal	Re- lief	Non- relief			To- tal	Re- lief	Non- relief	
Male:										
Kindergarten, Grade										
I or II.....	99.6	99.6	99.7	99.3	99.9	99.8	99.8	99.7	99.9	99.9
Grade III.....	98.6	98.5	98.8	98.0	99.7	99.7	99.6	99.4	99.8	99.9
Grade IV.....	96.9	96.6	97.0	96.1	99.2	99.6	99.3	99.0	99.6	99.9
Grade V.....	91.8	90.7	91.6	89.7	98.4	99.3	98.6	98.1	99.1	99.8
Grade VI.....	84.7	82.8	84.1	81.3	95.9	98.6	97.3	96.4	98.2	99.5
Grade VII.....	75.5	72.6	74.8	70.2	91.9	96.8	94.1	92.2	96.1	98.7
Grade VIII.....	63.6	59.5	61.3	57.5	86.4	93.6	87.6	84.2	91.3	96.7
High school.....	53.2	48.7	48.3	48.9	78.1	83.1	73.7	67.2	80.8	89.5
College.....	1.8	1.2	0.5	2.0	5.0	5.8	2.9	1.0	5.0	7.7
Female:										
Kindergarten, Grade										
I or II.....	99.7	99.6	99.8	99.6	99.7	99.9	99.8	99.8	99.9	99.9
Grade III.....	99.1	99.0	99.0	99.1	99.5	99.8	99.7	99.6	99.8	99.9
Grade IV.....	98.3	98.1	98.0	98.3	99.4	99.7	99.6	99.4	99.8	99.9
Grade V.....	94.7	94.0	94.3	93.9	98.7	99.5	99.2	98.9	99.6	99.8
Grade VI.....	89.3	88.0	88.7	87.5	96.9	99.1	98.3	97.8	99.0	99.7
Grade VII.....	81.9	79.8	80.9	78.9	94.2	97.9	96.0	94.8	97.3	99.2
Grade VIII.....	71.4	68.1	69.6	66.8	90.4	95.0	91.1	88.5	93.7	97.6
High school.....	61.5	58.0	57.3	58.6	81.9	85.1	77.5	71.6	83.3	90.3
College.....	2.9	2.5	0.9	3.8	5.6	5.9	3.4	0.8	5.9	7.6

EDUCATIONAL ATTAINMENT OF COLORED YOUTH

Incomes reported by colored families in the survey were predominantly under \$1,000 per annum. For this reason no subdivisions of annual incomes of \$1,000 and over are made in Tables 5 and 6 and in Figure 2, which present the educational attainments of colored

urban youth aged 20-24 and 15-19, in each economic class, with comparable data for white youth.

As is true among white youth, the amount of education received by colored youth varies directly with family income, even though a broad income classification has been applied for the colored youth. Differences between the educational attainment of colored youth in

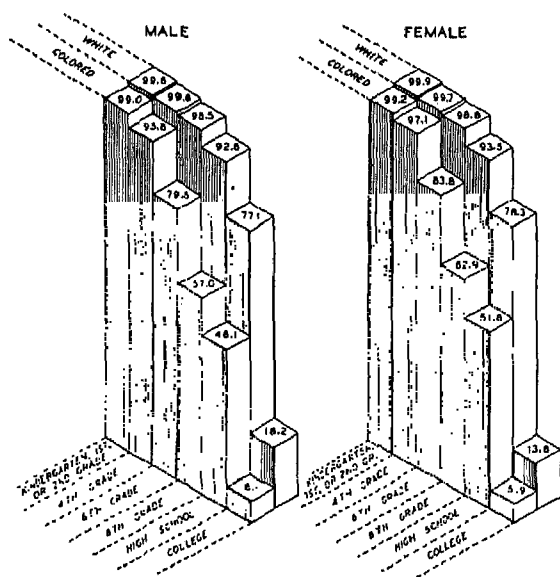


FIG. 2.—Percentages of colored and white urban youth, age 20-24, who had attained specified grade or higher in 1935-36 (based on Table 5).

the "Under \$1,000" income group and those in the "\$1,000 and Over" income group are evident from the lowest grade up. The differences increase progressively as the educational level is raised. Only 52.6 per cent of the colored male youth, aged 20-24, in the "Under \$1,000" income group attained Grade VIII, while 79.5 per cent of the youth in the "\$1,000 and Over" income group attained this educational level. Only 59.2 per cent of the colored female youth of this age in the lower income group reached Grade VIII compared with 82.4 per cent in the higher income group. For high school the corresponding percentages range from 41.5 to 69.6 for colored male youth, and from 48.2 to 70.6 for colored female youth. For college

the range is from 4.7 per cent to 13.4 per cent for males, and from 4.4 per cent to 14.1 per cent for females. It should be noted that the superiority in educational attainment of females is far more pronounced among colored youth than among white youth.

The wide differences between the educational achievements of the white and colored youth are conspicuously brought out in Figure 2. These differences are equally observable for males and females in each income group.

Recent increase in the amount of education received by persons in the 15-19 age group over that received by those in the 20-24 age group, already noted for white youth, is striking among colored youth (Table 6). Most of the increase, for both white and colored, has taken place in the lower income classes. However, despite the relatively greater increase in the amount of schooling obtained, colored youth still lag far behind white youth in educational achievement.

[To be concluded]

SELECTED REFERENCES FROM THE LITERATURE ON EXCEPTIONAL CHILDREN

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*

THE references in the following bibliography from the literature on exceptional children are classified as follows: materials concerned with (1) subnormal, backward, and dull-normal children, (2) behavior and problem cases and dependent children, (3) juvenile delinquency, (4) superior and gifted children, (5) blind and partially seeing children, (6) crippled children, (7) deaf and hard-of-hearing children, (8) delicate children, (9) speech defectives, and (10) general references. The references in the first four of these classifications were compiled and annotated by Dr. Hildreth; those in the remaining classifications, by Dr. Ingram.

TRENDS IN RECENT STUDIES OF THE MENTALLY EXCEPTIONAL CHILD

Trends in studies of the mentally exceptional child are similar to those previously noted except for an increase in the study of children's behavior—emotional and social adjustment problems in wartime. Juvenile delinquency appears to have increased in England because of the dissolution of homes, the closing of schools, and the directing of adult energies to war work. In America the scientific study of characteristics of exceptional children continues with unabated zeal, a larger number of such studies having appeared during the past year than in any other period of similar length. The educational implications pointed out in these studies have resulted in better school and institutional programs for children with behavior problems and especially for the teen-age dull child.

SUBNORMAL, BACKWARD, AND DULL-NORMAL CHILDREN^{*}

199. ABEL, THEODORA M. "Moral Judgments among Subnormals," *Journal of Abnormal and Social Psychology*, XXXVI (July, 1941), 378-92.
Presents significant findings concerning moral orientations of subnormal adolescent girls studied by means of the Piaget technique.
200. ALLEN, ARDA TALBOT. "Cogs in the Occupational Wheel," *Occupations*, XX (October, 1941), 15-18.
Emphasizes the need for more vocational guidance for dull-normal children in high school and lists books describing unskilled and semiskilled jobs.
201. ANDERSON, META L. "The Meaning of Education for the Mentally Retarded," *American Journal of Mental Deficiency*, XLVI (July, 1941), 6-16.
Indicates weaknesses in present educational programs for the dull and outlines new types of schools for these pupils.
202. BICE, HARRY V., and GRAVES, CHARLOTTE E. "The Mentally Deficient Child in the Residential School," *Mental Hygiene*, XXV (July, 1941), 392-401.
The success of the residential-school program for the mentally defective child depends on the child's contentment and satisfactory social relationships.
203. BIXBY, EMILY MAY. "Further Biochemical Studies in Mongolism," *American Journal of Mental Deficiency*, XLV (October, 1940), 201-6.
Indicates that Mongolism is not primarily of thyroid origin and suggests a cause of a different nature.
204. CUTTS, NORMA E. "The Mentally Handicapped," *Review of Educational Research*, XI (June, 1941), 261-76.
Summarizes recent research on the mentally handicapped.
205. DOLL, EDGAR A. "Notes on the Concept of Mental Deficiency," *American Journal of Psychology*, LIV (January, 1941), 116-24.
Attempts to clarify the definition of mental deficiency.
206. DOOLEY, WILLIAM H. "Vocational Training for the Nonacademic Pupil in the Academic High School," *High Points in the Work of the High Schools of New York City*, XXIII (June, 1941), 37-45.
Presents a plan for improving academic and vocational training of dull-normal pupils in high school.
207. FINLAYSON, ALICE B. "Social and Economic Background of Retarded Children," *Journal of Educational Sociology*, XV (September, 1941), 38-45.

^{*} See also Item 341 (Phillips) in the list of selected references appearing in the June, 1941, number of the *Elementary School Journal*; Item 455 (Pritchard) in the September, 1941, number, and Item 650 (Stinson) in the November, 1941, number of the same journal; and Item 74 (Schmidt) in the February, 1942, number of the *School Review*.

A study of retarded and delinquent Negro children in public schools, with special emphasis on their inferior social and economic status as a factor in retardation.

208. FRIED, RUDOLPH S. "Ten Years of Relaxation and Self-direction at Bailey Hall and a Description of New Methods in Training of Children," *American Journal of Mental Deficiency*, XLV (January, 1941), 459-63.

Demonstrates the need to conserve the nervous energy of mentally deficient children in order that they may be taught effectively.

209. GRUENER, JENNETTE R. *Feeble-minded Children as a Massachusetts Problem*. Boston: Massachusetts Child Council (41 Mount Vernon Street), 1941. Pp. 64.

Written to give the general public an understanding of various problems involving the adjustment of the mentally deficient in the community and of the need for community responsibility on behalf of the defective.

210. HACKBUSCH, FLORENTINE. "Responsibility of the American Association on Mental Deficiency for Developing Uniform Psychological Practices in Schools for Mental Defectives," *American Journal of Mental Deficiency*, XLV (October, 1940), 233-37.

A report of a survey of a hundred state and private schools for mental defectives.

211. HACKBUSCH, FLORENTINE. "When Should the General Social Agency or the School Refer the Mentally Defective Client to an Agency Specializing in Work with Defectives?" *American Journal of Mental Deficiency*, XLV (October, 1940), 296-303; ENGEL, ANNA M. "When Should the School Refer the Mental Defective to the Specialized Agency or Institution?" *ibid.*, 304-9; BROWN, CECIL H. "When Should the General Social Agency Refer the Mental Defective to the Specialized Agency or Institution?" *ibid.*, 310-15.

This series discusses the questions of when social agencies in the community should assume responsibility for the care of mental defectives and when such cases should be referred for placement in institutions.

212. HUNGERFORD, RICHARD H. "The Detroit Plan for the Occupational Education of the Mentally Retarded," *American Journal of Mental Deficiency*, XLVI (July, 1941), 102-8.

Describes the work in occupational education carried on with special-class pupils in Detroit.

213. JELLINEK, A. "Phenomena Resembling Aphasia, Agnosia, and Apraxia in Mentally Defective Children and Adolescents," *Journal of Speech Disorders*, VI (March, 1941), 51-62.

Abnormalities in special behavior traits as well as in general behavior are found in mentally defective children. Recommendations for remedial work are given.

214. JEWELL, ALICE A. "A Follow-up Study of 190 Mentally Deficient Children Excluded because of Low Mentality from the Public Schools of the District of Columbia, Divisions I-IX, September, 1929, to February 1, 1940," *American Journal of Mental Deficiency*, XLV (January, 1941), 413-20.
Emphasizes the need for a competent field worker to help parents train the defective child and deal with family adjustment problems when the child remains at home.
215. KINDER, ELAINE F., CHASE, ANNETTE, and BUCK, ELIZABETH W. "Data Secured during a Follow-up Study of Girls Discharged from Supervised Parole from Letchworth Village," *American Journal of Mental Deficiency*, XLV (April, 1941), 572-78.
Presents characteristics of the adjustment levels reached by two groups of mentally defective paroled cases.
216. MARTIN, M. FRANCES. "Personality Development and Social Adjustment of Mentally Retarded Children," *American Journal of Mental Deficiency*, XLVI (July, 1941), 94-101.
A report of the work with mentally retarded children in Los Angeles.
217. MARTINSON, BETTY. "Post Training Progress of Mentally Handicapped Children Given Intensive Remedial Reading Lessons," *American Journal of Mental Deficiency*, XLV (January, 1941), 408-12.
Cites the good results from work in remedial reading given to mentally defective children apart from regular classroom work.
218. MARTINSON, BETTY, and STRAUSS, ALFRED A. "Education and Treatment of an Imbecile Boy of the Exogenous Type," *American Journal of Mental Deficiency*, XLV (October, 1940), 274-80.
Mental defectives with brain injuries require educational treatment different from that given to defectives of endogenous origin.
219. MELCHER, RUTH T. "Developmental Progress in Young Mentally Handicapped Children Who Receive Prolonged Pre-academic Training," *American Journal of Mental Deficiency*, XLV (October, 1940), 265-73.
Defines the concept of the mentally handicapped child's readiness for academic school work and states the benefits of pre-academic training until the child reaches the age of eight years.
220. MONES, LEON. "Experimenting with Mentally Retarded Pupils in High School," *American Journal of Mental Deficiency*, XLVI (July, 1941), 89-93.
Reports adjustments in the high-school curriculum provided for mentally retarded pupils in a Newark (New Jersey) junior high school.
221. MORSE, GRANT D. "A Differentiated Program for Duller High School Pupils," *Journal of Experimental Education*, X (September, 1941), 38-40.

Presents the results of a study made to determine the extent of the problem and the educational needs of dull pupils in certain communities in New York State. Includes recommendations.

222. SPOERL, DOROTHY TILDEN. "The Drawing Ability of Mentally Retarded Children," *Pedagogical Seminary and Journal of Genetic Psychology*, LVII (December, 1940), 259-77.

Drawing ability increased with mental age, and retarded children drew somewhat better than normal children of the same mental age.

223. SPRINGER, N. NORTON. "Kent Oral Emergency and Stanford-Binet Tests Applied to Adolescent Delinquents," *American Journal of Orthopsychiatry*, XI (April, 1941), 292-99.

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224. TALLMAN, FRANK F. "The School Adjustment of the Mentally Retarded," *American Journal of Mental Deficiency*, XLV (October, 1940), 238-42.

Outlines the conference method of treating behavior problems.

225. TANGYE, C. H. W. "Some Observations on the Effect of Evacuation upon Mentally Defective Children," *Mental Health* (London), II (July, 1941), 75-78.

Reports improvements in subnormal boys after evacuation.

226. VALENTINER, HARRIETT L. "The Comparative Fatigability of Normal and Mentally Deficient Children," *Journal of Abnormal and Social Psychology*, XXXVI (January, 1941), 51-61.

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227. HARROWER-ERICKSON, M. R. "Personality Changes Accompanying Organic Brain Lesions: III. A Study of Preadolescent Children," *Pedagogical Seminary and Journal of Genetic Psychology*, LVIII (June, 1941), 391-405.

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Presents follow-up data on children of both sexes charged with homosexual practices. Discusses causes and prospects of correction.

229. HILL, J. M. "Unwanted, Unloved Children: A Study of Nervous Parent-Child Relationship," *Diseases of the Nervous System*, II (April, 1941), 135-39.

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232. RUBENSTEIN, LAWRENCE. *Personal Attitudes of Maladjusted Boys*. Archives of Psychology, No. 250. New York: Archives of Psychology (R. S. Woodworth, editor, % Columbia University), 1940. Pp. 102.
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233. SPENCER, L. J., and NEMZEK, C. L. "A Comparative Study of the Scholastic Achievement of Disciplinary and Nondisciplinary Pupils," *Journal of Social Psychology*, XII (November, 1940), 245-53.
Nondisciplinary pupils matched with disciplinary cases were found to be superior in academic achievement and citizenship ratings.
234. VALENTINE, CHARLES W. *The Difficult Child and the Problem of Discipline*. London: Methuen & Co., Ltd., 1940. Pp. 104.
Discusses the disciplinary control of child behavior, which represents a protest against the assumption that the child's character is formed during the first few years of life.
235. VULCAN, BEATRICE. "Factors in the Later Social Adjustment of Children Treated by a Child Guidance Clinic for Stealing from Their Parents," *Smith College Studies in Social Work*, XI (December, 1940), 143-44.
Describes the subsequent adjustment of thirty children.

JUVENILE DELINQUENCY²

236. BELL, MARJORIE (editor). *Dealing with Delinquency*. Yearbook of the National Probation Association, 1940. New York: National Probation Association, Inc., 1941. Pp. 342.
Contains the papers given at the thirty-fourth annual conference of the National Probation Association.

² See also Item 478 (Thom and Johnston) in the list of selected references appearing in the September, 1941, number of the *School Review* and Item 375 (Rosanoff, Handy, and Plesset) in the May, 1942, number of the same journal.

237. BENNETT, CHESTER C. "Problem Children, Delinquency, and Treatment," *Review of Educational Research*, X (December, 1940), 440-49.
The following topics are included: incidence and classification of children's problems, attributes and background of problem children, techniques of measurement, agencies handling problem children, treatment, and outcomes of treatment.
238. CALDWELL, M. G. "The Extent of Juvenile Delinquency in Wisconsin," *Journal of Criminal Law and Criminology*, XXXII (July-August, 1941), 148-57.
Presents the results of a study of the juvenile-delinquency court cases in Wisconsin for the years 1935-40.
239. CANTOR, NATHANIEL. "Dynamics of Delinquency," *American Journal of Orthopsychiatry*, X (October, 1940), 789-93.
Stresses the need for understanding the various interrelations of causal factors in each case of delinquency.
240. CARR, LOWELL JUILLIARD. *Delinquency Control*. New York: Harper & Bros., 1941. Pp. xiv+448.
A handbook for students, social workers, court officials, and civic leaders who deal with problems of juvenile delinquency.
241. *Children in the Courts, 1937*. Publication No. 250. Washington: Children's Bureau, United States Department of Labor, 1940. Pp. iv+88.
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Presents statistical data on 1,626 first admissions to the adolescent ward of Bellevue Hospital in New York City.
243. *Directory of State, County, and Municipal Training Schools Caring for Delinquent Children in the United States*. Publication No. 264. Washington: Children's Bureau, United States Department of Labor, 1940. Pp. vi+26.
A report prepared by the Child Guidance Division of the Children's Bureau.
244. DUREA, MERVIN A. "Personality Characteristics and Degree of Delinquency. I and II," *Journal of Social Psychology*, XIII (May, 1941), 329-49; ———, and FERTMAN, M. H. "Emotional Maturity of Delinquent Girls," *American Journal of Orthopsychiatry*, XI (April, 1941), 335-37; ———, and FERTMAN, M. H. "Personality Characteristics of Juvenile Offenders," *Journal of Criminal Law and Criminology*, XXXII (November-December, 1941), 433-38; ———, and HESTON, J. C. "Dif-

ferential Diagnosis of Potential Delinquency: Additional Suggestions," *American Journal of Orthopsychiatry*, XI (April, 1941), 338-40.

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245. DYBWAD, GUNNAR. "The Problem of Institutional Placement for High-Grade Mentally Defective Delinquents," *American Journal of Mental Deficiency*, XLV (January, 1941), 391-400.

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246. FAUQUIER, WILLIAM. "The Correlation of Language Attitudes of Delinquent Boys to Their Previous Institutional Behavior," *Child Development*, XI (December, 1940), 285-91.

A study of the relation between misconduct in delinquent boys and their attitudes toward thirty situations similar to those represented in their own misbehavior.

247. FRANKEL, EMIL. "The Offender and the Court: A Statistical Analysis of the Sentencing of Delinquents," *Journal of Criminal Law and Criminology*, XXXI (November-December, 1940), 448-56.

Compares the types of sentences passed by four New Jersey judges during three selected years.

248. GARDNER, GEORGE E., and WOLLAN, KENNETH I. "Activity-Interview in the Study of Delinquency," *American Journal of Orthopsychiatry*, XI (January, 1941), 143-49.

Discusses the way in which insight into the problems presented by delinquent boys is gained through weekly interviews, observation during participation in games and gymnasium exercises, and classroom discussions of problems pertaining to boys.

249. HART, HENRY H., and AXELRAD, SIDNEY. "The Only-Child Delinquent Contrasted with Delinquents in Large Families," *Journal of Criminal Law and Criminology*, XXXII (May-June, 1941), 42-66.

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250. HEALY, WILLIAM. "The Program of the American Law Institute for Dealing with Youthful Offenders," *American Journal of Orthopsychiatry*, XI (January, 1941), 175-76.

Discusses a "Youth Correction Authority Act" of the American Law Institute.

251. HEALY, WILLIAM, and ALPER, BENEDICT S. *Criminal Youth and the Borstal System*. New York: Commonwealth Fund, 1941. Pp. vi+252.

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252. JOHNSON, KATE BURR. "Meeting the Training Needs of the Delinquent Girl," *Training School Bulletin*, XXXVIII (March, 1941), 6-14.
Presents data that describe the average institutionalized delinquent girl in New Jersey, together with a description of training courses.
253. JORDAN, THOMAS F. "Educational Implications of Crime Prevention," *Catholic Education Review*, XXXIX (April, 1941), 208-18.
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254. KRAUSE, LAWRENCE J. *The Correlation of Adjustment and Achievement in Delinquent Boys*. Studies in Psychology and Psychiatry from the Catholic University of America, Vol. V, No. 2. Washington: Catholic University of America Press, 1941. Pp. xiv+74.
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255. LEVY, RUTH JACOBS. *Reductions in Recidivism through Therapy*. New York: T. Seltzer, 1941. Pp. 144.
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257. PANKEN, JACOB. *The Child Speaks: The Prevention of Juvenile Delinquency*. New York: Henry Holt & Co., Inc., 1941. Pp. x+346.
A record of the author's personal experiences as judge in a children's court.
258. PESCOR, M. J. "A Further Study of the Rorschach Test Applied to Delinquents," *Public Health Reports*, LVI (February 28, 1941), 381-95.
Concludes that the Rorschach test is unsatisfactory in the routine examinations of delinquents when used as a measuring instrument comparable to psychometric techniques.
259. POLIER, JUSTINE. *Everyone's Children, Nobody's Child*. New York: Charles Scribner's Sons, 1941. Pp. xvi+332.
Through the use of case material, a judge of the New York City Children's Court analyzes causes and patterns of juvenile delinquency and urges greater communal responsibility for child welfare.
260. REED, ELLERY F. "Relation of Relief to Increase of Juvenile Court Cases," *Social Service Review*, XV (March, 1941), 104-15.

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261. REINEMANN, JOHN OTTO. "Forty Years of the Juvenile Court Movement in the United States," *Mental Hygiene*, XXV (April, 1941), 256-68.
Reviews differences in attitudes and procedures in the handling of juvenile-court cases.
262. SELLIN, JOHAN THORSTEN. *The Criminality of Youth*. Philadelphia: American Law Institute, 1940. Pp. 116.
A condensation of the reports of the author to the Criminal Justice-Youth Committee of the American Law Institute.
263. WAGGONER, RAYMOND W., and BOYD, DAVID A., JR. "Juvenile Aberrant Sexual Behavior," *American Journal of Orthopsychiatry*, XI (April, 1941), 275-91.
Suggests that sex delinquencies are often only another expression of the individual's delinquency pattern and that they originate from the same general cause as any other type of unacceptable behavior.
264. WALLACE, EUGENE W. "Physical Defects and Juvenile Delinquency," *New York State Journal of Medicine*, XL (November 1, 1940), 1586-90.
Juvenile delinquents aged nine to sixteen years were found to have an unusual number of physical defects. General hygiene was poor, but physically they were unusually mature.
265. WATTS, FREDERICK P. "A Comparative Clinical Study of Delinquent and Nondelinquent Negro Boys," *Journal of Negro Education*, X (April, 1941), 190-207.
Presents a study of the similarities and the differences in problem behavior and emotional stability by matched groups of delinquent and nondelinquent Negro boys.
266. WOLLAN, KENNETH I. "A New Treatment Program for Juvenile Delinquents," *Journal of Criminal Law and Criminology*, XXXI (March-April, 1941), 712-19.
Indicates the failures of the normal probation period and describes a new program for reformation and treatment.

SUPERIOR AND GIFTED CHILDREN¹

267. BRUNER, HERBERT B. (chairman). "Education of the Gifted," *Teachers College Record*, XLII (February, 1941), 375-432.

¹ See also Item 444 (Carroll) in the list of selected references appearing in the September, 1941, number of the *Elementary School Journal*; Item 186 (Hildreth) in the April, 1942, number of the same journal; and Item 370 (Sumption) in the May, 1942, number of the *School Review*.

A report of the Conference on Education of the Gifted held at Teachers College, Columbia University, in December, 1940, in honor of the late Professor Leta S. Hollingworth.

268. DRAG, FRANCIS L. "The Gifted Child: A Report of Practices in California Cities," *California Journal of Elementary Education*, X (August, 1941), 8-28.

A report summarizing the practices in dealing with gifted children in twenty California cities.

269. *Final Report of the Public School 500 (Speyer School), 1935-1940*. Publication No. 12. New York: Division of Elementary Schools, Board of Education of the City of New York, 1941. Pp. vi+160.

Summarizes the outcomes of the five-year experiment with rapid and slow learners conducted jointly by the Board of Education of the City of New York and Teachers College, Columbia University.

270. *High School Methods with Superior Students*. Research Bulletin of the National Education Association, Vol. XIX, No. 4. Washington: Research Division of the National Education Association, 1941. Pp. 155-97.

A study made to discover points of view of high-school principals and the actual practices employed in the education of superior pupils.

271. KUNTZ, ALFRED. "Are Talented Children Good Athletes?" *High Points in the Work of the High Schools of New York City*, XXIII (January, 1941), 55-59.

Shows that gifted high-school boys acquire general athletic proficiency and individual skills in less time and with less practice than do average boys.

272. LEWIS, W. DRAYTON, and MCGEEHEE, WILLIAM. "A Comparison of the Interests of Mentally Superior and Retarded Children," *School and Society*, LII (December, 1940), 597-600.

Gifted children have many more interests and hobbies than do retarded children. The findings suggest the need for differentiated instruction of the two groups.

273. LORGE, I. "Superior Intellectual Ability: Its Selection, Education and Implications," *Journal of Heredity*, XXXII (June, 1941), 205-8.

Society should make good use of the developed abilities of its most capable members since the intellectually superior will yield a larger proportion of leadership than any other social group.

274. NEWLAND, T. ERNEST. "The Mentally Gifted," *Review of Educational Research*, XI (June, 1941), 277-87.

Summarizes recent research relating to the gifted.

275. TONSOR, CHARLES A. "Failure in the Bright School," *High Points in the Work of the High Schools of New York City*, XXIII (January, 1941), 67-70.

Analyzes the causes of failure among pupils enrolled in special classes for the gifted.

TRENDS NOTED IN CURRENT LITERATURE ON THE
PHYSICALLY HANDICAPPED

The current literature reflects not only interest and progress in the promotion of medical and educational facilities for larger numbers of physically handicapped children but also interest in the purpose, organization, and refinement of services. An increasing number of states are appointing personnel to administer and supervise programs. New York City has published several reports growing out of a comprehensive study of physically handicapped children begun in 1936 (see Items 291 and 300). These studies, made by committee members from the medical field assisted by educators, indicate the concern and interest of medical men on behalf of the school-age child.

In reading and interpreting the New York City reports, one must recognize that they depict a local program, with its own peculiar metropolitan conditions, which is not typical for communities where other conditions prevail. The recommendations in the reports reflect premises stated generally in literature on children with physical handicaps, namely, co-ordination between the fields of medicine and of education; adequate child study and a mental-hygiene approach; provision for the preschool child; adequate vocational training; and prevention of, and attention to, minor handicaps in the regular classroom.

BLIND AND PARTIALLY SEEING CHILDREN¹

276. BALCH, MARGARET. "Planning an Individual Reading Program for a Child in a Sight-saving Class," *Sight-saving Review*, XI (June, 1941), 107-20.
A teacher of a sight-saving class discusses a good reading program for typical children and a good reading program for children in a sight-saving class, with brief consideration of the necessary adaptations. A bibliography is appended.
277. HATHAWAY, WINIFRED. "Helping America by Saving Sight in Childhood—through Educational Service," *Sight-saving Review*, XI (June, 1941), 94-106.
Presents the relation of social work to the sight-saving class program.
278. HAYDEN, RUTH R. "What To Do for the Mentally Retarded Pupil," *Teachers Forum for Instructors of Blind Children*, XIII (May, 1941), 82-90.
A teacher discusses her own experience in teaching the visually handicapped and mentally retarded child.

¹ See also Item 366 (Hayes) in the list of selected references appearing in the May, 1942, number of the *School Review*.

279. HILDRETH, GERTRUDE. "Evaluating the Mental Status of Partially Seeing Children," *Teachers College Record*, XLIII (December, 1941), 211-23. The use of enlarged Stanford-Binet material in testing fifteen children indicated a wide range in intelligence and the presence of handicaps other than visual defects.
280. LENDE, HELGA (editor). *What of the Blind? A Survey of the Development and Scope of Present-Day Work with the Blind*, Vol. II. New York: American Foundation for the Blind, Inc., 1941. Pp. viii+206. A companion volume to *What of the Blind?* published in 1938. Articles by eighteen authors are grouped as follows: "Interpretation of Blindness," "Special Educational Problems," "Personal Adjustment of the Adult Blind," "Economic and Vocational Adjustment," "Statistics of Blindness," and "The Federal Government and the Blind."
281. PALMER, EBER L. "Present Trends in Guidance and Training in Residential Schools for the Blind," *Outlook for the Blind*, XXXV (June, 1941), 109-13. A superintendent of a residential school describes recent trends in guidance, with emphasis on prevocational training.
282. TOTMAN, HARRIET E. "Some Problems and Trends in Sight-saving Work in High Schools," *Sight-saving Class Exchange*, No. 77 (June, 1941), pp. 4-13. Discusses the problems that sight-saving pupils meet when placed in high school without a special sight-saving teacher.
283. TOTMAN, HARRIET E. "The Training of the Preschool Blind Child," *Outlook for the Blind*, XXXV (June, 1941), 117-21. Discusses the significance of early training and cites programs that are designed to assist parents in home guidance during preschool years.

CRIPPLED CHILDREN

284. ANDERSON, A. HELEN. "Denver Builds for Its Crippled Children," *American School Board Journal*, CII (April, 1941), 36-40. Describes the Charles Boettcher School of Denver for crippled children. Shows the floor plan, three exterior views of the ultra-modern building, and thirteen photographs.
285. CARLSON, EARL R. *Born That Way*. New York: John Day Co., 1941. Pp. x+174. A physician, who suffered from birth injury, relates what he has accomplished through years of education and self-discipline.
286. KELLY, ELIZABETH M. "A Program To Develop Social Maturity in the Orthopedic Child," *Journal of Exceptional Children*, VIII (December, 1941), 75-79.

The head teacher of a school for orthopedic and cardiac children describes the use of the Vineland Social Maturity Scale in guiding her pupils to greater self-help and socialization.

287. PHELPS, WINTHROP MORGAN. "Factors Influencing the Treatment of Cerebral Palsy," *Physiotherapy Review*, XXI (May-June, 1941), 136-38. Points out some definite, fundamental psychological differences between the cerebral palsied and the normal and also between the spastic and the athetoid types of the cerebral palsied.

288. RANEY, RICHARD BEVERLY, and SHANDS, ALFRED RIVES, JR. *A Primer on the Prevention of Deformity in Childhood*. Elyria, Ohio: National Society for Crippled Children of the United States of America, Inc., 1941. Pp. xx+188.

Two doctors with wide orthopedic experience describe the several crippling conditions which affect children and portray the same graphically. The book is designed to acquaint teachers, medical social workers, hospital-board workers, and general practitioners with a background of understanding for both treatment and preventive work.

289. STRAUSS, MARION. "Secondary Education for Physically Handicapped Children," *Crippled Child*, XIX (December, 1941), 91-92.

A high-school teacher presents the necessary requirements for the handicapped pupil of secondary-school age and discusses the varied means by which school boards meet these needs in schools.

290. WINTERSTEIN, W. A. "School by Telephone: The Electrical Two-Way Teaching Device for Crippled Children in Iowa," *Child*, V (April, 1941), 250-51.

Describes an electrical two-way device enabling home-bound children to listen and contribute to classroom discussion.

DEAF AND HARD-OF-HEARING CHILDREN

291. THE COMMITTEE FOR THE STUDY OF THE CARE AND EDUCATION OF PHYSICALLY HANDICAPPED CHILDREN IN THE PUBLIC SCHOOLS OF THE CITY OF NEW YORK. *Report of the Sub-committee on Acoustically Handicapped Children*. New York: Board of Education of the City of New York, 1941. Pp. xiv+110.

One of the reports growing out of a comprehensive study begun in 1936 of physically handicapped children in the New York City schools. Among the items treated are historical backgrounds, types and causes of deafness, the audiometric and otological findings for representative groups of children, and the program of the day school for the deaf. Includes recommendations.

292. CUTLER, ELIZABETH MARY. "Summary of Psychological Experiments with the Deaf: 1932-1938," *American Annals of the Deaf*, LXXXVI (March, 1941), 181-92.

Reviews sixty-eight studies of the intelligence, achievement, personality, and aptitude of the deaf.

293. GARDNER, WARREN H. "The Oregon Program for Conservation of Hearing," *American Annals of the Deaf*, LXXXVI (May, 1941), 255-65.

The consultant in hearing and vision of the Oregon State Board of Health describes the program under way in that state for the examination of all children and for the follow-up of cases needing attention because of hearing handicaps.

294. *The Hard of Hearing and the Deaf*. Seventy-seventh Congress, First Session, House Document No. 151. Washington: Government Printing Office, 1941. Pp. vi+112.

An authentic compilation of laws valuable for all those interested in the hard-of-hearing and the deaf. It covers, for each state, laws and administrative acts, orders, and policies affecting both the deaf and the hard-of-hearing.

295. HUGHSON, WALTER; CIOCCO, ANTONIO; WITTING, E. G.; and LAWRENCE, P. S. "An Analysis of Speech Characteristics in Deafened Children, with Observations on Training Methods," *Laryngoscope*, LI (September, 1941), 268-91.

Reports the collaboration of otologists and teachers of the deaf in an objective study of speech characteristics of deafened children and of the effect of auricular training methods on speech development and improvement.

296. MACFARLAN, DOUGLAS. "Hearing-testing of Little Children," *Hearing News*, IX (August, 1941), 14.

An otologist makes practical suggestions to parents and physicians for detecting the amount of hearing loss in young children.

297. MARBUT, MUSA. "A Fundamental Vocabulary Suggested for Deaf Children for the First Five Years in School," *American Annals of the Deaf*, LXXXVI (March, 1941), 137-58.

Presents a word list which has been compiled for use with deaf children five or six years of age entering the New Jersey School for the Deaf. The compilation of the list was based on various accepted vocabulary lists, and it includes a total of 2,132 words.

298. PINTNER, RUDOLF. "Artistic Appreciation among Deaf Children," *American Annals of the Deaf*, LXXXVI (May, 1941), 218-24.

Reports an experiment in which the first 36 plates of the McAdory Art Appreciation Test were given to 333 deaf boys and 384 deaf girls ranging from 11 to 21 years of age. Recommendations are made for further exploration in order to discover how art capacities may be better used in the curriculum.

299. STEVENSON, ELWOOD A. "The School of Tomorrow," *American Annals of the Deaf*, LXXXVI (September, 1941), 350-63.

Discusses the ideal objectives and the program for the deaf and hard-of-hearing in terms of teaching personnel, psychological service, curriculums and methods, vocational training, and extra-school life.

DELICATE CHILDREN

300. THE COMMITTEE FOR THE STUDY OF THE CARE AND EDUCATION OF PHYSICALLY HANDICAPPED CHILDREN IN THE PUBLIC SCHOOLS OF THE CITY OF NEW YORK. *Report of the Sub-committee on Cardiac Classes and the Care of Cardiac Children*, pp. 100; *Report of the Sub-committee on Epileptic Children*, pp. xiv+62. New York: Board of Education of the City of New York, 1941.

The first of these reports states the most recent medical conception of the problem of the care and education of cardiac children and summarizes the findings and observations of both physicians and educators. The second report presents findings, conclusions, and recommendations based on teachers' answers to questionnaires concerning home tutoring for epileptics, doctors' visits to homes, records of the Board of Education, and interviews with school officials.

301. JACKSON, ROBERT L. "Management of the Young Diabetic," *National Rehabilitation News*, VI (February, 1941), 10.

A physician describes a program of hospitalization and of adjustment for the diabetic child which enables him to carry on in a normal manner in school and home.

302. LYON, R. A., RAUH, LOUISE W., and CARROLL, MARY G. "The Social Adjustment of Children with Heart Diseases," *Mental Hygiene*, XXV (July, 1941), 443-49.

Summarizes some of the attitudes arising in twenty-two children suffering from heart disease who were in attendance at Children's Hospital, Cincinnati, Ohio.

303. SMITH, ANNE MARIE. *Play for Convalescent Children in Hospitals and at Home*. New York: A. S. Barnes & Co., 1941. Pp. xviii+134.

A directed play program developed experimentally at Children's Memorial Hospital, Chicago, Illinois, furnishes the basis of a discussion of play activities recommended for convalescent children.

SPEECH DEFECTIVES¹

304. JAMISON, OLIS G., and MORRIS, D. W. "Speech Clinic Serves Three Groups," *Nation's Schools*, XXVIII (August, 1941), 15-18.

Describes and photographs the activities of the speech clinic conducted at Indiana State Teachers College which has the following objectives: to improve the speech and reading habits of its own students; to provide a surrounding territory of schools with corrective work; and to train an adequate supply of speech and reading teachers.

¹ See also Items 501 (Gaines) and 548 (Wyatt) in the list of selected references appearing in the October, 1941, number of the *Elementary School Journal* and Item 369 (Spadino) in the May, 1942, number of the *School Review*.

305. JOHNSON, WENDELL. "Tongues That Learn To Stumble," *Hygeia*, XIX (May, 1941), 416-20.

The author believes that stuttering is generally learned behavior. Points out that studies made during the past five years have shown that young stutterers and adult stutterers are markedly different. Suggests that adult methods and attitudes affect the speech fluency of children who become stutterers.

306. KENYON, ELMER L. "The Etiology of Stammering: An Examination into Certain Recent Studies, with a Glance into the Future," *Journal of Speech Disorders*, VI (March, 1941), 1-12.

Presents a summary and a classification of the present status of the etiology of stammering. The author believes that too much emphasis is given to the general psychologic and psychiatric elements of causation, without sufficient attention to the psychophysiologic origin and nature of the impediment.

307. ZIMMER, CATHERINE, and PRATT, MARJORIE. "Introducing a Primary Speech Program to Classroom Teachers," *Quarterly Journal of Speech*, XXVII (April, 1941), 266-71.

Describes a speech program set up in the Shorewood (Wisconsin) public schools. It includes a simple speech-analysis sheet covering voice articulation and nervous speech disorders, which teachers of Grades I and II were trained to use.

GENERAL REFERENCES¹

308. HUDSON, HOLLAND, and VAN GELDER, ROSETTA. *Counseling the Handicapped*. New York: National Tuberculosis Association, 1940. Pp. x+56.

A handbook for the use of trained counselors in the vocational guidance of the physically handicapped.

309. LAVOS, GEORGE. "Problems in Psychological Testing of the Handicapped," *Journal of Exceptional Children*, VIII (October, 1941), 4-8.

Discusses psychological testing of the handicapped as a valuable service that carries with it many challenging problems.

310. MARTENS, ELISE H. "Education for a Strong America," *Journal of Exceptional Children*, VIII (November, 1941), 36-41.

Reviews the extent and the significance of the growth in special education throughout the country for the past two decades.

311. PINTNER, RUDOLF; EISENSEN, JON; and STANTON, MILDRED B. *The Psychology of the Physically Handicapped*. New York: F. S. Crofts & Co., 1941. Pp. viii+392.

This book covers in a thorough manner the present knowledge in the psychological field of the several physical handicaps.

¹ See also Item 22 (Martens) in the list of selected references appearing in the January, 1942, number of the *Elementary School Journal*.

312. POWELL, FRANK V. "Wisconsin's Program for Its Handicapped Children," *Journal of Exceptional Children*, VIII (February, 1942), 144-49, 160.

The director of the Wisconsin State Bureau for Handicapped Children describes the historical development of the state program, the organization for educational provisions in day and residential schools, home instruction, and rehabilitation.

313. *Principles of Child Care in Institutions*. Columbus, Ohio: Ohio Committee on Children's Institutions in co-operation with the Division of Public Assistance, State Department of Public Welfare, 1941. Pp. xxii+320. A handbook for study and discussion by members of the staffs of children's institutions.

314. STREET, ROY F. "The Social Adjustment of Children with More Than One Exceptional Characteristic," *Journal of Exceptional Children*, VIII (October, 1941), 16-23.

Reports a study of handicapping factors in children who suffer from more than one marked deviation and considers the effects on the child's social adjustment.

Educational Writings



REVIEWS AND BOOK NOTES

THE LITTLE RED SCHOOL HOUSE.—The Little Red School House is an independent school for children from four to fourteen in the "Village" section of New York City. It began as a public school in 1921, and, when its progressive program was threatened by the depression in 1932, the parents would not let it die. They were none too prosperous, but they raised enough money to keep the program going in a school of their own. The school has demonstrated that the best program of education which we now know how to provide may be maintained over a long period of time at a cost no higher than that of the average public school. The per capita cost of instruction in New York elementary schools for the year 1939-40 was \$124.73. The comparable figure for the same period at the Little Red School House was \$112. This achievement, together with the impressive results of the program, the constant stream of visitors to the school, and the instruction in progressive principles and practices which the school staff has given to hundreds of teachers, undoubtedly had some influence on the recent decision to introduce the activity program into sixty-eight New York schools enrolling seventy-six thousand children.

Any school which is attempting to develop such a program will be helped by the book about the Little Red School House which Agnes de Lima and the school staff have written.^{*} It gives a detailed account of the present program of each age group; then presents a still more detailed account of the various strands in the program, such as the three R's, trips, the June camp, music, dance, and the arts; and finally comes right down to the bare facts in a hundred-page appendix giving verbatim accounts of classroom discussions, materials used, books read, concepts developed, trips and other experiences utilized, schedules, and samples of pupils' writing. There is little theorizing about what ought to be done; each chapter says, "This is what we do"—and the facts speak for themselves. Few progressive schools are able or willing to give such a candid and complete account of themselves. Taking refuge in the old bogey of "setting a pattern for other schools to copy," they talk about general principles rather than concrete applications. If you want the general principles, better read John Dewey. If you want to know what the principles mean, better read *The Little Red School House*.

^{*} Agnes de Lima and the Staff of the Little Red School House, *The Little Red School House*. New York: Macmillan Co., 1942. Pp. xiv+356. \$3.50.

The presentation in this book is so clear, so interesting, so honest, and so disarmingly reasonable that a school which is developing an activity program might well use the book not only for its own guidance but for converting the opposition. Few parents or conservative teachers who had once read this account could fail to understand what an activity program is like, and few could resist its appeal. The argument that it sounds all right in theory but will not work in practice cannot be urged against this book, for it is nothing but a record of practice under average city school conditions over a period of twenty years. I once knew a fine old Irish priest whose highest praise for a book was, "This is a fine book to put into the hands of a Protestant." Progressive schools might well use this book for a similar purpose.

PAUL B. DIEDERICH

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SOCIAL IMPLICATIONS OF PERSONALITY DEVELOPMENT.—Today more than at any other time in the history of public education there is a demand that the emphasis in all teaching be placed on the development of an effective and socially useful personality. The testing movement influenced tremendously the study of individual differences and mental development, but, after the hue and cry of this movement had subsided somewhat, educators everywhere were still facing the same problems of maladjustment in the pupil population. The psychoanalytic school of thought stepped into the breach with a new set of concepts and a new point of view regarding personality development. There can be no doubt that much value for education has resulted from an understanding of the viewpoint and methods of workers in the field of psychoanalysis and psychiatry. This view has given a new set of principles, which has been useful as a point of departure in the study of unadjusted children. Nevertheless, it must be noted that the whole scheme is not based on a verifiable objective technique, as is a procedure in science. When the explanations offered for a given phenomenon are so varied and the viewpoints so widely divergent, it may be assumed, with considerable confidence, that the fundamental factors underlying the phenomenon are not clearly understood and that the present knowledge covering the field is not adequate to explain the situation.

The volume under review¹ adopts the Adlerian theory of "feelings of inferiority" as a major explanation of maladjustment. The whole technique of study and treatment of unadjusted children is built up in the light of Adler's school of individual psychology. The unusual feature of the book is its emphasis on the part played by the classroom teacher in the field of child guidance. The aim of the book is expressed thus: "Of course we do not aim to make psychiatric experts of teachers. We hope, rather, to give the thoughtful reader a new

¹ *Corrective Treatment for Unadjusted Children: Principles and Practice* by Nahum E. Shoobs, *Manual* by George Goldberg. New York: Harper & Bros., 1942. Pp. viii+240. \$3.00.

vitality important and more objective viewpoint toward the personality problem" (p. 6).

The book is divided into two parts: the first, a discussion of the theoretical aspects of child guidance; the second, a manual of instructions for the guidance of teachers in the application of techniques. Some chapter headings in the theoretical discussion indicate the nature of the approach: "The Unity of Personality," "Early Memories," "Styles of Life," "Social Interest," "The Family Constellation," and "The Interview." In the discussion of each chapter, case histories illustrating the type of problem are offered to clarify and objectify the viewpoint. In the teacher's *Manual* twenty cases are analyzed in great detail, and the treatment of each is indicated. Advice and suggestions illustrating the technique to be followed step by step are included in the *Manual*.

This book will be of greatest value in the orientation of students undertaking the study of personality development. To those who have had wide contact with problem cases in school, the whole treatment may seem oversimplified and over-optimistic.

LOUISE W. PUTZKE

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SCHOOL DISCIPLINE PROBLEMS AND THEIR SOLUTIONS.—Those who teach have a responsibility for the efficient functioning of the school. They also have a responsibility for the future happiness and usefulness of the children. There was a day when teachers and parents so much favored strict discipline that they overlooked the present and future happiness of the children. On a wave of reaction against severity, domination, and frustration, some parents and teachers became unduly enthusiastic about giving the children complete freedom of action.

The authors of a modern book on school discipline^{*} remind us that every teacher has in her classroom children with problems, that "a child's problem may manifest itself in behavior which interferes with the work of his fellow-pupils" (p. vii), and that "the teacher must always correct some types of behavior and encourage others if she is to train her pupils—discipline them—in the ways of society" (p. 3). In matters of discipline it may be practical to take a position avoiding, on the one hand, the damage done by too strict domination whereby breaches of school order and behavior are dealt with almost entirely by old-fashioned methods of repression and punishment and, on the other hand, avoiding the errors of disorder and license. However, the teacher who does no more than avoid these extremes has not yet provided adequate training for the future happiness and usefulness of the children, for, as the authors state, "eventually each person must be responsible for himself, and the gradual shift from teacher direction to self-direction is a duty of the school" (p. 26).

^{*} Norma E. Cutts and Nicholas Moseley, *Practical School Discipline and Mental Hygiene*. Boston: Houghton Mifflin Co., 1941. Pp. x+324. \$1.90.

In Part I the authors deal with everyday problems and their solutions, giving case-study descriptions and suggesting practical procedures for the prevention of disorder and for the use, without abuse, of punishments. There is more to good classroom discipline than keeping the children busy and interested, but without this situation, disorder is certain. "The class as well as the teacher needs practice to develop good habits" (p. 20). Well-chosen examples of types of behavior and of types of disorder, with indications of some common causes, are followed by examples of actions and punishments which teachers have found especially useful in prevention and in correction. However, the authors emphasize that "one great reason of this book is to show that children's behavior may be a sign of maladjustment and that merely to punish the behavior without trying to find the cause is not only ineffective in the long run but actually dangerous to the future mental health of the individual" (p. 62). They recognize that punishments must often be used but that, if teachers punish, they must also help. Teachers must realize that they may punish a *mistake* but never a *lack* in the child's education or development.

Throughout the whole book there is evident an effort to face frankly the problems met with by all teachers and to offer solutions within the range of possibility. This purpose makes practical a division of the book into Part I and Part II. While both parts emphasize the mental health of the child, Part II outlines procedures for use in more serious cases and tries to show the teacher how to apply to problems of classroom control the new knowledge of child behavior derived from recent studies of child psychology and mental hygiene. When and how to enlist the help of social agencies, of the doctor, of the psychologist, and of other experts is faced also in a practical manner:

In puzzling cases and when you think some need is evident in the life of a child or family, get in touch with the agency, recreational, medical, economic, educational, or social, which you think can supply the need. If a problem is too big for you to solve in the time at your disposal, do not trust to luck: ask for help [p. 248].

Both teachers in training and teachers in service will profit by a study of this useful and helpful book. The authors have made a real contribution to the treatment of the old and ever present problem of school discipline.

ROBERT E. STRICKLER

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A CHILD'S MIND AS SEEN THROUGH HIS DRAWINGS.—The psychologist will see in Hildreth's book¹ one more contribution to his field because of its inclusion of many drawings made by one child (who was allowed to draw as he pleased even after he entered school) on one subject in one medium—pencil drawing.

¹ Gertrude Hildreth, *The Child Mind in Evolution: A Study of Developmental Sequences in Drawing*. New York: King's Crown Press (a Division of Columbia University Press), 1941. Pp. 164. \$2.00.

To the art teacher, however, the general makeup of this book is not exciting. The small drawings are crowded on the pages; they have no color or dark and light patterns; and they lack the dramatic interest of most childrens' drawings.

If the reader will discipline himself to the extent of reading every word and looking carefully at every detail in each drawing, he will be rewarded by having seen 148 train and locomotive drawings made by Charles between the ages of two and eleven and by having learned the comments of the author, who has examined more than two thousand drawings by the child.

The book is divided into eight chapters. The first chapter discusses "The Child's Drawing as Graphic Language." The second tells about "The Child's Early Experiences in Drawing." The third chapter gives a description of the drawings by age levels. Chapters iv-vii describe characteristic features in the train drawings which appear as the child grows. Chapter viii supplies the psychological interpretations, and finally there appears an excellent bibliography, followed by the drawings.

The art teacher will draw many conclusions quite different from those of the author. For instance, the author includes a tabulation from a recent unpublished study presenting the number and the percentage of Norfolk (Virginia) children who showed driving rods in any fashion on drawings of trains and locomotives. She gives this tabulation to show that Charles was more mature than most children, for he represented at an earlier age the driving rods and their relation to driving wheels and steam cylinders. The art teacher would have included some pictures by the Norfolk children, which undoubtedly would have been works of art showing the thrill of a train as the smoke made a white streak against the sky, with perhaps several white clouds to echo the drama of the smoke. Or the art teacher might have included drawings of a train at night, with the big headlight and rows of tiny lights showing from the cars, speeding along over a high bridge. The art teacher would have recorded Charles's shortcomings compared with those of the Norfolk children. Charles missed the artistic experience because his mind was focused on a detail.

The author states that Charles did not use color. When one sees the thrill that children get from color, one regrets that Charles missed these experiences. The author also states that Charles attended a "progressive school" where he could draw what he wished as he wished. The art teacher wonders that Charles could attend such a school and not be inspired, by the beautiful work of children and teachers in progressive schools today, to use design and color.

The greatest value of the book is its presentation of many drawings, especially the preschool drawings which educators find most difficulty in obtaining. Each reader may draw his own conclusions from the evidence presented.

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LABORATORY SCHOOLS, AS THEY ARE AND AS THEY COULD BE.—If it may be assumed that the 132 institutions replying to Williams' inquiry were representative and that facts gathered in 1933-34 and partly checked in 1937-38 are indicative of present-day practices, a recent monograph¹ gives a comprehensive overview of the status of laboratory-school facilities for the training of teachers. Four-fifths of the book is devoted to a summary of facts yielded by a questionnaire, which is not reproduced. A brief concluding section states the "recommendations."

The pertinent facts about laboratory schools are presented and interpreted under these five topics: (1) general information about the calendar year, curriculum, and enrolments; (2) the laboratory courses which are offered in the laboratory or training schools; (3) the campus laboratory schools; (4) the off-campus laboratory schools; and (5) the unused but potentially available off-campus laboratory schools.

Williams did a thorough job of summarizing a tremendous amount of factual material. The assumption seems to have been made that the most effective way to improve laboratory-school facilities was to gather comparative data and recommend as desirable the practices of schools generally considered to be best. The criterion of worth most consistently used was "the views of leading workers in the field of teacher education" (p. 221). Basic evidence on the effectiveness of various laboratory-school facilities in terms of the improved teaching ability of students using these facilities was nowhere presented. This information probably would be considered beyond the scope of the present inquiry, but such evidence would seem to be imperative for any description of what the laboratory school of the future should be like.

The chief criticism of the factual part of Williams' study is that more than half of the statistical tables reproduce data which are almost ten years old. Little of current significance, for example, can be inferred from a table of enrolments in teachers' colleges in 1933-34. When facts are reported both for 1933-34 and for 1937-38, the differences are often so great as to make the reader wonder whether in 1942 the monograph has much more than historical significance. Especially is this true for those colleges which have been greatly influenced since 1939 by the Division on Child Development and Teacher Personnel of the Commission on Teacher Education of the American Council on Education.

The questionnaire data from more than one hundred institutions, as well as the recommendations of many educators, led Williams to make these suggestions for the improvement of laboratory schools: (1) The teachers' college should offer specialized curriculums including both theory and laboratory-school experiences in terms of various grade levels and subject-matter areas. (2) All institu-

¹ E. I. F. Williams, *The Actual and Potential Use of Laboratory Schools in State Normal Schools and Teachers Colleges*. Teachers College Contributions to Education, No. 846. New York: Teachers College, Columbia University, 1942. Pp. x+260. \$2.65.

tions should eliminate curriculums shorter than four years. (3) The period of contact with the laboratory school should be lengthened. (4) Special types of institutions should specialize in the preparation of special types of teachers. (5) Practice and theory should be integrated. (6) Induction into teaching should proceed from observation through participation to responsible classroom teaching. (7) Approximately 120 hours of classroom teaching should become the standard. (8) Little emphasis should be placed on experimentation in laboratory schools; pupils and practices should be "normal." (9) Off-campus schools should be reasonably accessible to the campus. They should stand in contractual relationship to the teachers' college and should be compensated for the services that they render.

Although the Table of Contents is reasonably complete, the reviewer missed an index. To be maximally useful, any book, dissertation or not, that is over 250 pages long and is crammed full of facts, names, and research summaries should be indexed.

STEPHEN M. COREY

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MEASUREMENT EXPLAINED FOR THE TEACHER.—Scarcely more than a quarter of a century has passed since the advent of objective tests as an integral part of the instructional school program, but during that time—and especially during the past five years—the scope, methods, instruments, and techniques of school testing have changed and expanded greatly. The development has been more or less unique to each of the elementary-school, the secondary-school, and the college levels. Hence there is a definite need for an up-to-date and fairly inclusive reference publication at each of these three levels. *Measurement and Evaluation in the Elementary School*¹ meets this need for the elementary-school supervisor and classroom teacher in the field and, to some degree, for the student of elementary education.

Measurement and Evaluation in the Elementary School is an expanded treatment of Greene and Jorgensen's earlier volume, *The Use and Interpretation of Elementary School Tests*, which first appeared in 1936. The revision not only brings the content of the earlier volume up to date (about 40 per cent of the numerous direct references in the revision are publications appearing after 1936) but also includes material pertaining to the measurement of attitudes and interests and to testing in the field of health and physical education.

The tone and philosophy of the revision are summarized in the following statements:

The underlying purpose of all testing is the accurate determination of class and individual pupil difficulties to the end that remedial instruction may follow. Of equal or

¹ Harry A. Greene, Albert N. Jorgensen, and J. Raymond Gerberich, *Measurement and Evaluation in the Elementary School*. New York: Longmans, Green & Co., 1942. Pp. xxiv+640. \$3.75.

even greater importance is the new angle which more exactly analytical and diagnostic testing gives to the preventive phases of instruction through the anticipation of causes of weakness or difficulty [p. 301].

Pupil and teacher time spent in any kind of testing situation is time wasted unless some tangible aid comes back to the classroom which will improve the conditions under which the pupils learn and the teacher teaches [p. 583].

The first nine chapters of *Measurement and Evaluation in the Elementary School* are, in a sense, introductory. They give a brief history of the testing movement to date; they list the criteria of a good examination; and they point out the difference between, and appropriate uses for, standardized and informal classroom testing. Chapters x, xi, and xii are devoted to a discussion of pupil guidance in terms of intelligence tests, personality instruments, and cumulative records. The next nine chapters deal with the diagnosis of pupil difficulties and remedial teaching in the various elementary-school subjects. The final four chapters discuss the summarization and the interpretation of test data.

Among the book's strong points the reviewer has found the following: (1) There is a profusion of illustrative material. Approximately a hundred facsimile excerpts from currently available standardized tests at the elementary-school level appear. The reviewer was disappointed, however, to note that some of these excerpts are fairly old. For example, in the chapter dealing with testing in the social studies, only one illustration, among the eight given, involves a test published after 1931. (2) The publishers and the dates of publication are given for practically all the standardized tests referred to. (3) A handy topical outline appears at the beginning of most of the chapters. (4) Ample supplementary bibliographies are to be found at the end of each chapter. (5) A glossary of almost three hundred technical terms will aid the reader whose knowledge of statistical and technical test terminology is limited.

Measurement and Evaluation in the Elementary School, written from the point of view of the classroom teacher, is a handy reference book on testing at the elementary-school level. The reviewer recommends it as a desirable addition to the professional library of the classroom teacher. It might well serve as a basic textbook in a first course in testing, but advanced students in education and specialists in testing will find the book somewhat elementary.

GUSTAV J. FROELICH

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HOME ACTIVITIES OF ELEMENTARY-SCHOOL CHILDREN.—Elementary-school teachers or administrators interested in social science, child guidance, and the functions of parent-teachers' associations, as well as home economists, will find in Luecke's publication¹ much information helpful in curriculum development.

¹ Editha Luecke, *Factors Related to Children's Participation in Certain Types of Home Activity*. Teachers College Contributions to Education, No. 839. New York: Teachers College, Columbia University, 1941. Pp. viii+104. \$1.60.

The author reports an investigation of the participation in home activities by fourth-, fifth-, and sixth-grade children in Denton, Texas. She began by collecting from the pupils themselves and from their parents lists of home activities engaged in by the children. These lists indicated that children's participation seemed to fall into three categories, namely, personal regimen, housekeeping, and meal preparation. She then compiled check lists which, together with a series of tests, interviews, and questionnaires, were the source of the data relating to child participation; attitudes toward the activities; and the influence on attitude of sex, age, parental education, socio-economic status, sibling position, special interests of the child, and his general home adjustment. The findings are presented in statistical form, which the lay person may find difficult to interpret, but the summary in the text is readily understood.

The study indicates that, although girls participate more than do boys in home activities, both engage in a great number of activities. Both perform about equally well and show about the same attitudes in the three types of home activities. Personal-regimen activity is engaged in most, housekeeping next, and meal preparation least. Housekeeping is disliked most, personal regimen next, and meal preparation least. In general, boys are less interested and have more dislikes than girls. As girls grow older, their interest increases, as well as their participation, and their dislikes are less marked. As one might expect, boys' interest in personal regimen increases after they have reached eleven years of age.

Parent education seems to have a relation to interest. Boys whose parents are in the middle of the educational scale (one or both parents having graduated from high school) are more interested in these activities and have less dislike for them than do boys whose parents are found either among the more highly educated group or among those with less than a high-school education. Interest in meal preparation for girls decreases as the education of parents increases. Within the group represented by this study, socio-economic status does not affect girls' participation in home activity, but it does influence the boys' participation. Boys of a low socio-economic level are less interested in personal-regimen activities and engage less than the others in any of the activities. As might be expected, those children who report a large number of other interests also show a greater interest in home activities.

Besides the statistical data, the report includes diary records of pupils and comments of parents, which are most revealing. Parent attitudes greatly influence interest, progress, and success of the child. Too high standards discourage and block child interest. Fathers' attitudes definitely affect the sons' attitudes.

The study seems to point to the fact that elementary-school children are participating in home activities and that they show interest which should be capitalized on both by the home and by the school in preparing them for successful family life now and later. The evidence indicates that their attitudes toward

home activities are well formed before they study homemaking in most schools. More elementary schools are including such experiences, and, with the aid of Luecke's findings, such experiences can be made more effective.

The Appendix includes an activities list and a Home Information Blank that will prove helpful in collecting pertinent data to be used in the guidance of pupils.

In general the book points to a very valuable kind of co-operation between parents and teachers in educating children for home and family life.

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Educational News and Editorial Comment

*

SCIENCE-TEACHING AND THE WAR

EVERY subject, every activity, and every purpose for educating is being scrutinized to ascertain what it has to contribute, directly or indirectly, to the war effort. Every magazine for school consumption contains one or more articles about the relation of this or that school subject to the war. Some school activities are attached to the war effort by a filament; others have much to contribute in the development of attitudes toward, and understandings of, the world-crisis.

Much emphasis is being placed—and rightly so—on the danger of overindulgence in this effort to evaluate all school activity in light of its contribution to the war effort. Perhaps this danger may be overbalanced by the good which will result from scrutinizing textbooks and courses of study to find precisely what they contribute toward *the growth and development of girls and boys*. No one would deny that there is a present need for such scrutiny and great need for its continuance. It is to be hoped that close inventory of the purposes of school courses may result in their improvement as well as in the realization that much in English, art, music, and many other portions of the curriculum need not be turned upside down because we

are at war. The values inherent in many of the school subjects in time of peace continue to exist in time of war, and many of these values are doubly important in time of war.

The science program as an integral part of the school's course of study takes on itself very great responsibility. Its aims, as cited in the prefaces to books, courses of study, and elsewhere, are broad and inspiring. In general the aims are: (1) to foster the growth of a scientific attitude and to develop the ability to solve problems in a scientific manner; (2) to lay the foundation for health and safety; (3) to teach principles and generalizations so that pupils can interpret the meaning of the phenomena, processes, materials, and living things with which they come into daily contact; (4) to teach the value and importance of conservation; (5) to contribute interests for worthy use of leisure; and so on. These and many more are the responsibilities assumed by science teachers. The achievement of some of these aims is closely tied up with the activities which are a part of the war effort. In time of peace as well as in time of war, the attainment of these objectives is very difficult. Unfortunately most pupils never realize them.

Today more than ever before, stress is being laid on the development of attitudes and the ability to solve problems and on health, safety, and conservation.

Fostering growth of a genuinely scientific attitude A scientist is slow to accept as fact such statements as are not supported by convincing evidence. He respects another's point of view; changes his conclusions in the face of newer, more convincing evidence; and seeks to understand the principles underlying the phenomena which he observes. So, too, should all citizens in our democracy. The boys and girls who are today attending science classes in elementary and high school are the individuals who will tomorrow be the voters, the mayors of our cities, the governors of our states, the administrators of our national policy. While this idea is not new, it places in the hands of science teachers great responsibility—greater than they have to date been able to cope with.

Too much glib talk about scientific thinking and too little actual practice in exercising such thinking is a major weakness of the sci-

ence-teaching done in the schools. Perhaps it is not possible to instil scientific habits of thinking into the minds of boys and girls. But has any school system actually tried consistently to do so, from the primary grades through the last year in high school? Children do not absorb scientific attitudes by reading about them in the preface of a textbook, by following a set of directions for doing an experiment, or by filling in blanks in a workbook. How, then, can these habits of thought be developed in pupils? Certainly one way is to *force them to exercise such attitudes day after day*.

Whenever children perform an experiment and are permitted to draw sweeping generalizations from their results, the teacher misses an opportunity to bring about a realization that it may be disastrous to draw conclusions from meager evidence. Whenever a problem in science arises and the teacher promptly answers it, an opportunity to illustrate a scientific method of problem-solving is lost. When pupils bring to class the answer to some problem and are permitted to submit their evidence without being questioned about its source, an opportunity to teach the criteria for determining the validity of evidence is lost. When faulty reasoning is permitted, when snap judgments are made, when conclusions are drawn without sufficient evidence, when experiments are poorly conducted, or when observations are too hastily made, the teacher is fostering the development *not* of a scientific way of thinking but of a sloppy habit of reasoning which is much too characteristic of the pupils in our schools.

Experience shows that the more real the problems which boys and girls are attempting to solve, the more earnest are their efforts to find solutions. Some of the questions relating to the war provide excellent problems for science classes. Pupils all over the country are collecting paper, collecting tin foil, conserving sugar, and engaging in dozens of other similar activities. If asked *why* they are doing so, a high percentage of the children would be unable to give an intelligent answer.

If asked to investigate these problems, a large majority would believe the first person who gave them information. The question of *who* gives the information appears important only to a small percentage of our pupils. The fact that sources disagree may not even stimulate them to make further investigation unless they are re-

quested to do so. Few pupils realize the need for evaluating sources of information. Why? Could it be because teachers have not continually urged and required them to make such evaluations?

The practice of appraising the source of information may begin on the day when some primary-grade child responds to a story read to him with the question: "Is that really a true story?" This questioning may be his first experience with the fact that some authors write stories for entertainment alone, others write to give information. Each kind of writing has a definite place, but, when one wants to *know the answer*, one needs a true book. From this beginning, children may progress to the use of the information on the title-page, may begin to compare material with sources which are known to be reliable, and may carry out other similar activities equally important in determining the reliability of informational material.

The practice of investigating problems may also begin at an early age. This practice has been termed a "research activity" in a recent publication of the Board of Education of the City of New York, which was prepared at the direction of the Board of Superintendents. The actual organization and editing of the report, which carries the title *Changing Concepts and Practices in Elementary Education*, were done by Stephen F. Bayne, associate superintendent assigned to the Division of Elementary Schools. The pamphlet has the following to say with regard to research activities:

The term "research" connotes habits of independent study. Good habits of observation and study develop with experience. Little children are interested in raising questions, making inquiries, finding what the book says, doing puzzles, looking for some place or building on a map, deciding how a character shall be dressed in our play or how to make something or how to play a new game. Every time the teacher overcomes the temptation to tell and gives the class experience in finding information themselves, she adds to their power to do independent research.

If a first-year class wants to have a grocery store as its unit and the teacher raises the problem, "What shall we sell in our store?" "How can we find out?" the pupils will make and carry out excellent suggestions. They will visit the grocer, look in the store window, find advertisements in circulars or in the newspaper, and ask mother or father to "read what it says." If the problem is, "What shall we charge for an article?" they will find many excellent answers. If the problem is, "How can we let people know what we have for sale?" the children will be enthusiastic to find solutions.

Many teachers in the elementary school are reluctant to encourage

pupils to ask questions in the field of science because they feel woefully unprepared in the subject matter of science. The New York report comments on this situation:

Some teachers are afraid to let children raise questions because the teacher may not know the answers. Yet these are the questions that present real problems and provide best training in research. The teacher should ask where the answers can be sought and should be willing to let children spend several days if necessary in inquiring, interviewing, and searching in books or newspapers or pictures or other sources. Questions calling merely for reproduction [of material covered] have much less value. Just copying statements from an encyclopedia or a textbook is not research and should not be practiced unless a quotation is needed.

Observation indicates that some of the best teaching of science in the elementary schools is done by teachers who approach unfamiliar problems with the attitude: "I do not know the answer to the problem, but I can help you find it." This outlook gives room for scientific investigation and the development of a scientific attitude.

America is at war. In one way or another this fact affects every school child. The problems concerning the war are real. Under direction, the solving of some of the problems can call from pupils the best that they can offer in thinking. The situation underlines the desirability of putting less stress on the course of study and more on the solving of problems of immediate concern to pupils. It is a time to place less stress on remembering unimportant details of facts and more on determining the validity of the sources of information. It is a time for stressing the importance of being open-minded, for learning to analyze data carefully and accurately.

Through the science classes there must be constant emphasis—day after day, week after week, year after year—on the elements that go to make up a scientific way of looking at things. It is difficult to find a justification for some of the subject matter taught in science, but the development of a genuinely scientific attitude is, in itself, a justification for any number of hours spent in science classes.

Laying a foundation of understanding in health Shall health be taught as a separate subject? That question is often discussed by educators responsible for curriculum construction. The word "separate" is used to indicate a subject taught at some definite period or periods of the week and not included as

part of some other area of learning, such as science. The health-teaching done in school has been "separate" whether or not it was so planned, for it has been "separate" from life-situations. Much of the health-teaching consists in presenting rules and other health material without providing either for application to life or for appropriate understanding by the pupils. Understanding is the bridge which links health-teaching with science instruction in the elementary school as well as in the high school. The rule, "We should eat a balanced diet," begins to take on meaning when the pupil learns what the classes of foods are and what each contributes to growth and repair of the body. When he learns that the human body is composed of elements and compounds and that the source of these constituents is the food which he eats, he can begin to understand that good teeth and bones cannot be formed without the proper materials from which to make them. The rule, "Chew each mouthful of food adequately before swallowing it," becomes meaningful when the pupil studies the chemical changes that take place in the mouth and elsewhere in the body during digestion and assimilation. The same relation exists in a legion of other places in the health curriculum. Why we need fresh air, proper clothing, adequate light, pure water, milk, and other foods can be understood when a scientific background for the understanding becomes a part of the child's intellectual equipment.

This same relation between the study of science and the study of health is present at any time—whether we are at war or at peace. Since we are at war, great stress is being laid on the health of pupils and much is being said and done about first aid. Consequently there is more and more need for the help that science instruction can give to the health program now so essential. The case for giving more consideration to, and for a refocusing of, the aims of the present practices is set forth in a recent publication of the Wisconsin State Department of Public Instruction, which "contains preliminary reports on curriculum content and procedure prepared by committees appointed shortly after December 7, 1941":

The war emergency may create certain school health problems which may be forestalled by recognition and planning for their prevention:

1. Long-range health programs should be immediately planned and estab-

lished in each school. This is desirable in order to forestall disregard of the primary health needs of the child in attempting to answer many demands that may be made in the name of national defense. Such demands should be examined critically to determine whether they represent actual needs, and whether real benefit may be obtained from them. . . .

2. The development of a sane attitude towards the war and its events should be achieved in the school as essential to mental health. The development of morale is also essential to present and future mental health.

3. The possibilities of adverse influences on child health from the longer school day or week and the elimination of vacations should be considered. If the school year is to be shortened, it *might* be preferable to sacrifice some of the educational objectives of the year rather than increase the work load on the child.

4. Nutrition education should be emphasized, and its practical applications made a part of the school program wherever possible.

5. Teacher training in observational skills which will help the teacher to recognize and, within her limits, deal with early evidence of health problems, should become an immediate and widespread undertaking in both in-service and pre-service teacher training. Teacher-parent and teacher-nurse-parent conferences should be established as a part of the health program in each school which does not have these or more extensive health services. Such conferences should deal with health problems and health habits of the child. Where need is indicated, they should be followed by medical consultation. Such a plan for health service is needed since in the near future medical and nursing facilities may be extremely limited, and needed for immediate care of the sick and injured.

6. The health values in a program of physical activities and outdoor life should receive recognition. The school should assume leadership in providing training and opportunities for *all* students in *daily* participation in such activities. Serious consideration should be given to the recommendation of the American Association of School Administrators: "A well-balanced program of physical education will first provide an extensive varied program of intramural sports, and then, if necessary, the extramural program will be supplemented with an interscholastic program."

Nutrition as a part of the health program is receiving special consideration. Among the more widespread indications of this practice is a film described in a recent release from the Office of Defense Health and Welfare Services of the Federal Security Agency. The release points out:

A new educational program to build a strong nation by teaching Mr. and Mrs. America how to win the war on the food front is in full swing under the aegis of the Federal Security Agency. As part of its National Nutrition Program, the Office of Defense Health and Welfare Services initiated the education-

al campaign to teach every man, woman, and child in the country the proper use and conservation of our supply of food products.

One of the dramatic ways in which this project is being carried to the American public is through the motion picture "Hidden Hunger," starring Walter Brennan, soon to be released directly to motion-picture houses of the nation by the Federal Security Agency. . . .

"Hidden Hunger" brings to the screen in poignant and understandable manner the newer knowledge of nutrition. It points up waste of food through improper cooking and waste of money through improper buying. . . . It points out dramatically the importance of a properly balanced diet. If the American people will buy and cook well-balanced meals so that they get all of the forty different elements the body needs, they will [in the words of the film's hero] "get themselves an equal chance for health, the way they've got themselves an equal chance to vote." And the two out of every five persons in this country now suffering from "hidden hunger" (not the hunger coming from an empty stomach, but the hunger in a body that is fed the wrong kind of food) will be brought back to health and efficiency. . . .

Since the film is one of the most important projects carried out by the Office of Defense Health and Welfare Services under Administrator McNutt, the latter is addressing himself to national organizations, such as men's and women's clubs and service groups, educational groups, youth groups, and similar bodies, asking them to help promote the film as part of their effort for our national defense program.

A survey of the literature current during the past few months indicates that schools everywhere are engaging in intensive and extensive revision of health-teaching and of the curriculum in this field. The literature seems to indicate that great effort is being made to keep health education from becoming a subject "separate" from life-situations in which it functions. The emphasis is more and more toward the application of health and nutrition rules to life and toward the development of an understanding of their meaning.

Developing safety habits among children in school The war has emphasized new angles of safety education in the schools. Adults are taking courses in first aid, and children are more conscious of the possible dangers in communities where war industries are going full tilt or where other crowded or unusual conditions make accidents more numerous.

Recommendations by school officials on organizing the school for protection against air raids, on co-ordinating educational facilities

for national defense, and on related problems are included in a new pamphlet entitled *National Emergency, Safety, and the Schools*, which has been published by the New York University Center for Safety Education. The pamphlet is an abstract of the conference on safety education and its place in the present emergency which was conducted for school superintendents and school-board members in New York City on January 16 under the auspices of the Center. Included in the report is a digest of an address on "Civilian Defense, Safety, and the Schools" presented by Mrs. Franklin D. Roosevelt. Mrs. Roosevelt said in part:

The situation we are in today adds to a safety problem of which we all have been cognizant for a long while—a problem which is enhanced by the fact that people are under more strain and tension. Children always react to what they sense in the atmosphere around them. Accidents and the things we do to prevent accidents must be more carefully considered than in normal times. . . . We have a patriotic obligation to have as few people in hospitals as possible. We must keep ourselves in condition to do our work and must keep mentally and spiritually in a frame of mind that keeps us safe. . . .

I think that young people can be given a greater sense of responsibility for themselves than they often have. . . . We can give them a better chance in life by teaching them earlier through school and home training to think for themselves about their own safety. The Boy Scouts and Girl Scouts have done much to get youngsters to think not only of themselves but of other people. Many things like school drills help children to do certain things automatically. There is much more we could do. One thing we do not always do with young people, for example, is to give them a greater understanding of their responsibility to the people around them. . . . The sooner they learn that, the better. We must teach young and old that when we do a thing, whether we are sorry or not, the consequences of that act are automatic. We must learn that we have to think and always be on the alert and that we have to accept the responsibility for our own acts. The sooner young people realize this, the sooner we will cut down accidents and make life easier for them.

Importance of superior teaching in the classroom An essential consideration too often forgotten in the planning of courses, in a shifting of their emphasis to meet an emergency, and in the setting-forth of new goals is: "How effectively is learning going on in the classroom?" Many educators contend that too little attention is being given to actual classroom procedure. After all, what does it matter that the goals be set up according to

specific needs, that the course be well organized and planned, that it make provision for stressing certain angles during the war, if the classroom instruction does not provide for carrying out these aims? Our schools will make new strides toward successful education when greater emphasis is placed on superior classroom teaching, whether in science, social studies, or elsewhere.

Mary Melrose, supervisor of science in the elementary schools of Cleveland, Ohio, in an article "What Is Good Teaching in Science?" appearing in *Middle-Grade Activities* (a bulletin published by Scott, Foresman and Company) presents thirteen "Signs of Good Teaching," which sum up her conception of a yardstick for measuring teaching:

1. The teacher uses a variety of techniques, methods, and procedures.
2. The class, the subject matter, and the materials are well organized.
3. Teacher and pupils work together on the problem before them.
4. Children understand the reasons underlying each activity.
5. Pupils ask many questions.
6. The teacher shows respect for pupils' questions and contributions.
7. Pupils make worth-while suggestions, devise additional experiments, and bring in specimens and materials for science.
8. Each child or group is working toward a definite goal.
9. Children read with a purpose.
10. There is much evidence in the classroom of the subject matter being studied: pictures, charts, models, specimens, etc. These are often of two types—child-made and commercial.
11. Good science-teaching is full of surprises.
12. The pupils and teacher have a good time together: fun and the thrill of discovery are often present.
13. The pupils carry on science interests in out-of-school hours, such as watching animals, collecting leaves, rocks, or insects, reading about science subjects at home or at the library, starting a hobby along some phase of science. (Of course encouragement at home is also a factor in out-of-school science activities.)

MORE ABOUT VICTORY CLUBS FOR SCHOOLS

RECENT issues of the *Elementary School Journal* have devoted much of the space of this section to a discussion of the schools and the war. In the April issue, under the title "Victory Clubs for Schools," a description of a plan was presented whereby the Labora-

tory Schools of the University of Chicago offered leadership in a co-operative venture with interested schools which would organize Victory Clubs to become the centralized organizations for carrying on the schools' war activities. The Laboratory Schools will act as a clearing-house for ideas on how to assist pupils to understand the advantages and the responsibilities of a citizen in a democracy and for suggestions on how to give direction and unity to activities concerned with the war effort.

A description of the plan, as presented in the April issue, along with a personal letter and a return reply card, was sent to a large number of school administrators and teachers in urban and rural sections. The responses to the plan have been sufficient to warrant continuing with it. The suggestions and comments given by those responding to the proposal are interesting because they indicate, in a measure at least, the thoughts of administrators and teachers concerning the schools' war efforts. A few of the more revealing comments are quoted below.

Teachers need to be informed regarding the publications issuing from various sources which are helpful in guiding their efforts with children.

We need more co-ordination of our efforts within the school to increase its effectiveness.

We should place greater emphasis on nutrition and health.

Small village schools and rural schools need outside help to stimulate and direct their war efforts.

Schools need an opportunity to share their ideas with other schools.

Much stimulation comes from knowing what other schools are doing.

Since the responses to the proposal seemed to indicate that elementary and junior high schools are enthusiastic about the plan, a trial issue of the *Victory Club Bulletin* has been prepared by the staff of the Elementary School of the University of Chicago. It is now ready for distribution, and a copy will be mailed to every person who responded to the proposal, as well as to any other interested teacher or administrator who writes for it. The response to this trial issue will be used as a criterion for a decision on the desirability of issuing further bulletins.

GLENN O. BLOUGH

CONFERENCE OF ADMINISTRATIVE OFFICERS OF PUBLIC
AND PRIVATE SCHOOLS

THE Department of Education of the University of Chicago extends a most cordial invitation to superintendents, principals, and business managers of public and private schools to attend the eleventh annual Conference of Administrative Officers of Public and Private Schools which will be held during the week of July 20-24, 1942. The general sessions of the conference will be held in Room 159, Belfield Hall. The program in the forenoon will consist of lectures by members of the Department of Education and visiting instructors. Separate round-table discussions for superintendents, high-school principals, and elementary-school principals will be held in the afternoon. Meals may be obtained in the dining-room of Blaine Hall and room accommodations in hotels in the University neighborhood. The demand for University facilities by government agencies makes it impossible for guests to be accommodated in University dormitories as they were in former years.

Admission to the conference is without fee, and arrangements have been made for those who attend to visit classes and to enjoy other University privileges without cost. For further information and a list of hotels and rates, interested persons may write to Professor William C. Reavis, of the Department of Education, University of Chicago.

The general theme of the conference, the complete program of which is given below, is "The School and the Urban Community."

Monday, July 20

THE NATURE OF SCHOOL AND COMMUNITY RELATIONS

"Relations of the Urban Community and the Modern School," Ralph W. Tyler, Professor and Chairman of the Department of Education; University Examiner, University of Chicago

"Community Functions of School Administrators," William C. Reavis, Professor of Education, University of Chicago

"Problems Encountered in Adapting Schools to Community Needs," DeWitt S. Morgan, Superintendent of Schools, Indianapolis, Indiana

Tuesday, July 21

UTILIZATION OF COMMUNITY RESOURCES

"In Curriculum Planning," Harold Spears, Principal, Highland Park High School, Highland Park, Illinois

"In Pupil Guidance," Stephen M. Corey, Professor of Educational Psychology; Superintendent of the Laboratory Schools, University of Chicago

"In School Interpretation," Nelson B. Henry, Associate Professor of Education, University of Chicago

Wednesday, July 22

EDUCATION AND THE IMPROVEMENT OF COMMUNITY LIFE

"The Role of the School in Education for Community Life," Earl S. Johnson, Assistant Professor of the Social Sciences, University of Chicago

"School Services to Older Youth and Adults," Paul B. Jacobson, Assistant Professor of Education; Principal of the University High School, University of Chicago

"Community Action and the School," Chester F. Miller, Superintendent of Schools, Saginaw, Michigan

Evening Session

THE BOARD OF EDUCATION IN THE URBAN COMMUNITY

"Qualities Desired in School-Board Members," Chester F. Miller, Superintendent of Schools, Saginaw, Michigan

"Qualities Desired in the School Superintendent," Waldo B. Ames, Member of Board of Education, School District 90, River Forest, Illinois

"The Adjustment of New Board Members," DeWitt S. Morgan, Superintendent of Schools, Indianapolis, Indiana

Thursday, July 23

SCHOOL PERSONNEL AND COMMUNITY LIFE

"Community Responsibilities of School Personnel," E. L. Bowsher, Superintendent of Schools, Toledo, Ohio

"Community Obligations to Teachers and Administrative Officers," W. W. Charters, Bureau of Educational Research, Ohio State University

"Educating Teachers for Effective Community Service," Robert G. Buzzard, President, Eastern Illinois State Teachers College, Charleston, Illinois

Friday, July 24

COMMUNITY STUDY AND EDUCATIONAL PROGRESS

"A Basic Conception of Community Life and Its Implications for Education," Newton Edwards, Professor of Education, University of Chicago

"Methods of Community Study," Lloyd Allen Cook, Associate Professor, Department of Sociology and College of Education, Ohio State University

"Regional and National Resources of Use to Localities in Solving School and Community Problems," Floyd W. Reeves, Professor of Administration, University of Chicago

CONFERENCE ON HUMAN DEVELOPMENT AND EDUCATION

SPONSORED jointly by the Department of Education of the University of Chicago, the Department of Supervisors and Directors of Instruction of the National Education Association, and the Commission on Teacher Education of the American Council on Education, a Conference on Human Development and Education will be held at the University of Chicago on August 10-21, inclusive. A preliminary announcement of the conference states that the program will include:

1. A series of presentations by various experts designed to give a digest of what is now known about human development and behavior.
2. A series of working groups of participants, under the leadership of practical school people, organized to discuss the implications of knowledge about human development and behavior for certain educational problems.
3. Opportunities for examining and studying materials gathered and prepared in the Collaboration Center for the study of human growth and behavior, established at the University of Chicago by the Commission on Teacher Education.
4. Opportunities to participate freely and creatively in the art studio maintained by the University of Chicago for the use of persons attending its workshops.
5. Opportunities to attend the many lectures, concerts, excursions, and other recreational activities organized by and for the University community during the summer quarter.
6. Special recreational and educational activities planned for conference members, such as viewing educational films, visiting the Laboratory Schools, community agencies, museums, theater parties, and sight-seeing excursions.

The conference leader is Daniel A. Prescott, head of the Division on Child Development and Teacher Personnel of the Commission on Teacher Education. Group leaders include Mildred English, superintendent of the Laboratory School of Georgia State College for Women, Milledgeville, Georgia; Lorraine Sherer, director of the Division of Elementary Education, Los Angeles County Schools; and Ruth Cunningham, executive secretary of the Department of Supervisors and Directors of Instruction of the National Education Association. Available as "resource persons" will be: Caroline Tryon, member of the staff, Division on Child Development and Teacher Personnel, Commission on Teacher Education of the American Council on Education; and the following members of the faculty of

the University of Chicago: Stephen M. Corey, Allison Davis, Robert J. Havighurst, Mandel Sherman, and W. M. Krogman.

The number of participants in the conference is limited to seventy-five. Persons wishing to enrol may communicate with Professor Daniel A. Prescott at the University of Chicago.

WHO'S WHO FOR JUNE

Writer of the news notes and authors of articles in the current number The news notes in this issue have been prepared by GLENN O. BLOUGH, teacher in the Laboratory Schools of the University of Chicago. WILLIAM S. GRAY, professor of education at the University of Chicago, discusses basic principles of education for the gifted child and objectifies the discussion by making special reference to reading. CARTER V. GOOD, professor of education at the University of Cincinnati, identifies the possibilities inherent in seven sources of problems for research. SYLVANUS A. BALLARD, a practicing attorney in Chicago, Illinois, in the light of constitutional provisions and court decisions discusses limitations on federal control of education. BERNARD D. KARPINOS, associate statistician of the United States Public Health Service, and HERBERT J. SOMMERS, assistant statistician of the same organization, in the second half of a report on the relation of educational achievement to socio-economic status, present data pertaining to interregional differences. ALINA M. LINDEGREN, acting chief of the Division of Comparative Education in the United States Office of Education, provides a list of selected references on foreign education.

The writers of reviews in the current number FLOYD T. GOODIER, director of integration at Illinois State Normal University, Normal, Illinois. DOROTHY T. HAYES, instructor in education and assistant secretary of the Department of Education at the University of Chicago. SIMON O. LESSER, senior economic editor in the Office of the Coordinator of Information, Washington, D.C. DENTON L. GEYER, director of vocational training and head of the Department of Education at Chicago Teachers College, Chicago, Illinois. HAROLD D. CARTER, assistant professor of education at the University of California. O. D. FRANK, teacher in the Laboratory Schools of the University of Chicago.

EDUCATION OF THE GIFTED CHILD: WITH SPECIAL REFERENCE TO READING

WILLIAM S. GRAY
University of Chicago

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CHARACTERISTICS OF BRIGHT PUPILS

THIS report is concerned chiefly with the pattern of education that should be provided for gifted children. The character of such a program depends, in part, on how well the pupils are able to meet the demands currently made of all pupils and, in part, on their potentialities for greater achievement. Of large significance are the facts that, when they enter school, these pupils are far better able, as a rule, to adjust themselves to school requirements than are the less capable and that they usually excel throughout the grades and high school in the intellectual activities commonly required of all pupils. These facts have such an important bearing on the total provision made for gifted children that they will be illustrated by special reference to the field of reading.

In the kindergarten and at the beginning of Grade I, most bright children are found to rank unusually high on reading-readiness tests. Detailed studies of their attainments show that their range of vocabulary, their command of language, their ability to express themselves, the extent of their information, their ability to deal with simple problem situations, and their powers of auditory and visual discrimination are significantly above those of their classmates. Experience shows also that by the time the unusually bright children enter Grade I, they are eager to learn to read, if, indeed, they have not already made definite progress in the art of reading.

As a result of carefully planned guidance in the latter part of the kindergarten or early in Grade I, the gifted child makes rapid progress in beginning reading. With a minimum amount of help he develops a basic sight vocabulary; associates meanings with visual symbols; fuses the meanings of separate words into chains of related

ideas; becomes deeply absorbed in the content of what he reads; and quickly acquires interest in, and ability to proceed with, independent reading. Furthermore, he readily discriminates words, associates sounds with specific elements of words, and applies what he knows about familiar words in the recognition of new ones. As he engages in wide reading, his ability to apprehend meaning increases rapidly, and he soon acquires habits of fluent, intelligent reading that are distinctly superior to those of his classmates. In the middle and upper grades he learns with relative ease to use reading effectively in study situations, and he usually ranks high in all the reading and study skills measured by standardized tests. Progress in ability to read at the high-school level is equally satisfactory. Not infrequently he ranks four or five years above the norm in reading for his age or grade group.

The major problems faced by schools in providing for gifted children do not, then, relate to the mastery of the basic understandings and skills that constitute the rudiments of an education. An exception grows out of the tendency of some bright pupils to neglect details. As a result teachers find it necessary to check frequently on their attainments and needs and to impose responsibility for thorough mastery. In most cases inadequate mastery is due not so much to actual difficulties in learning as to lack of attention to details or to conflicting interests. A limited number of bright pupils, however, do possess characteristics, usually physical or emotional, which interfere with progress in reading and in other basic subjects. Consequently, unusually bright children are sometimes found in remedial groups.

Gifted children have certain characteristics which make it possible for them to excel, both quantitatively and qualitatively, and to penetrate deeper than do their less fortunate schoolmates. With respect to reading, for example, they possess the qualities of mind essential for a clear apprehension of the meaning of relatively difficult material; for keen, critical interpretations of the ideas apprehended; for drawing inferences and recognizing implications; for applying what they read in the solution of problems; and for integrating the ideas secured through reading with previous experience so that new ways of thinking and improved patterns of behavior result.

When the achievements of gifted pupils are examined critically, however, the results are often found to be far from satisfactory. Not infrequently they are achieving relatively less in proportion to their ability than are many of the slow learners. This is particularly true in the case of reading. Support for this statement is found in the results of comparative studies of the achievement quotients of pupils of different levels of ability. Obviously the types of teaching ordinarily used fail to provide the opportunity and challenge to gifted children which will produce maximum growth. The problem which schools face, therefore, is to develop educational programs that make full use of the potentialities of the bright pupils and, at the same time, prepare them to live effectively in a democratic society.

PROPOSED ADJUSTMENTS FOR BRIGHT PUPILS

Numerous proposals have been made for promoting the fullest development of gifted pupils. A brief résumé of several contrasting proposals will be pertinent at this point. One of the plans which early received wide recognition is characterized by the term "rapid advancement" or "acceleration." A typical statement by some of the advocates of this plan follows.

There are many children in the schools of New York City who are maladjusted not because they belong in the group of conventional failures, but because they are failing to make the most of their own possibilities. They are the bright children who find little in the program for the average child to challenge their superior abilities. In proportion to their capacity they are not working effectively, nor are they working as happily as they might be since they are aware of their untaxed abilities. . . .

The junior high school has attempted to reach these children and make the adjustment through the rapid advancement classes which accelerate the pupil's progress through the three-year course of the junior high school in two or two and a half years.¹

The success of many bright pupils in completing more quickly than their classmates the work that is normally required, is accepted by some educators as evidence that the rapid-advancement plan provides the best solution of the problem. Other educators believe that much more than the usual amount of work in each unit should

¹ *Report and Recommendations of the Joint Committee on Maladjustment and Delinquency*, p. 35. Report of the Joint Committee on Maladjustment and Delinquency, Part V. New York: Board of Education of the City of New York, 1938.

be required if bright pupils are to profit most from their study. The latter contend, also, that rapid advancement of pupils projects them into high school and college while they are still very young and that, consequently they often become social misfits.

A second plan is characterized by the term "segregation." At the elementary-school level, classes of superior pupils are often placed in so-called "opportunity rooms," and specific programs of instruction in harmony with their interests and needs are organized. The advantage of segregation, as here conceived, lies not so much in the expectation of greater achievement in tool subjects as in the enrichment of experience and added intellectual opportunities in the specific fields studied.

The effort, however, to segregate bright pupils into strictly homogeneous groups has not proved eminently successful. Classification on the basis of mental age or intelligence quotient merely reduces variations with respect to one or two factors. It has been found also that in many respects bright pupils differ among themselves as much as do average or dull pupils and that they are, therefore, just as much in need of guidance and adjustment as are other pupils. Since children at every intelligence level differ widely in traits, qualities, attainments, and needs, it is impossible to organize strictly homogeneous groups. The best that can be done is to reduce the heterogeneity of groups with respect to their learning potentialities. For this reason, segregation is no guaranty that the best possible opportunities and guidance will be provided for the gifted child. Opponents of the plan argue that the particular needs of the exceptional pupil can best be provided for through differentiated assignments and supplementary projects rather than through segregation.

The so-called "enrichment plan" is much more widely used than any other. It involves usually an extension of the scope of the curriculum to provide both greater breadth of understanding and greater depth of penetration. It gives more emphasis to collateral readings, museum trips, visits to factories, and the like. As a rule, all pupils, both bright and dull, must meet certain common requirements. Through differentiated assignments and through special reports, committee activities, and individual projects, genuine interest is stimulated and the work is adjusted to the varying needs,

interests, and abilities of the pupils. In the judgment of its advocates, this plan has the distinct advantage of great flexibility, which facilitates its use among pupils differing widely in ability to read and in capacity to learn. According to its opponents, the enrichment plan is open to serious limitations because of the elaborate instructional facilities needed and the amount of time and energy required on the part of both teachers and pupils.

Reference has been made to three basic plans which have been used widely in providing for the needs of superior pupils, namely, acceleration, segregation, and enrichment. The basic principles and procedures involved in these plans have been utilized in various combinations in numerous practical experiments carried on during the past decade. Unfortunately the experimental literature does not provide conclusive evidence concerning the relative merits of the different instructional programs proposed. Furthermore, the conditions prevailing in different schools vary so widely that the type of program which is best in one school may be inappropriate in another. A survey of recent literature, however, reveals a distinct trend in favor of a modified enrichment program, with adequate provision for adjusting instruction to the varying needs of pupils.

CONTENT OF PROGRAM OF INSTRUCTION

The content of the instructional program, independent of the scheme of classification, is of vital importance. Bright pupils are often provided with a series of special projects based largely on their immediate interests. Such a program is open to the criticism that it lacks a sound social philosophy. As pointed out by Hollingworth, rapid learners will possess, as adults, the mental powers on which the learned professions will depend for conservation and advancement. They will also be the literary interpreters of the world of their generation. Furthermore, they will be the persons who can think deeply and clearly in the fields of government, economics, and sociology. It is obvious that their education should pave the way for initiative, originality, and constructive endeavor in such fields. Hollingworth rightly maintains:

Effective originality depends, first of all, upon sound and exhaustive knowledge of what the course of preceding events has been. To take their unique places in civilized society, it would seem, therefore, that the intellectually gifted

need especially to know what the evolution of culture has been. And since at eight or nine years of age, they are not as yet ready for specialization, what they need to know is the evolution of culture as it has affected *common things*. At present, this is not taught to children or to adolescents, except in fragmentary and casual ways. Persons typically graduate from elementary school, high school, and college, and take postgraduate degrees without learning much, if anything, about the evolution of lighting, of refrigeration, of shipping, of clothing, of etiquette, of trains, of libraries, and of a thousand things which have been contributed to the common life by persons in past times and which distinguish the life of civilized man from the existence of the savage. These things are vaguely taken for granted even by the intelligent, educated person. No systematic knowledge of how they came into being enriches his understanding. Nor is he aware of the biographies of those who have made his comfort and his safety possible. No more does he understand how dangerous and destructive forces came to be in the world. Of these vast fields the college graduate is typically ignorant, as has frequently been proved.¹

As one examines the areas which Hollingworth recommends for study: "food; shelter; clothing; transportation; sanitation and health; trade; time-keeping; illumination; tools and implements; communication; law; government; education; warfare; punishment; labor; recreation," one cannot escape the conviction that those which probably have greatest worth for the superior child at the level of general education correspond closely with the areas which are most important also for other types of children. The distinction is, however, that the superior child can study these areas more broadly and can penetrate deeper.

Closely associated with the character of the content studies is the nature of the habits cultivated by superior pupils. The types of habits emphasized among the upper 10 or 15 per cent of the pupils in the English classes in New York City were summarized recently by Cohen as a result of a questionnaire study. The replies, though variously phrased, fell into certain categories.

The habits particularly favored are discovering relationship between ideas, rapid selection of material bearing upon a given topic, budgeting of time, supporting beliefs, attitudes, and conclusions with ample facts and information, using the library intelligently, using leisure time in activities commensurate in importance with the capacity of the student, translating ideas into socially valuable action, developing mature reading skills, reading extensively for a unit purpose, assuming obligations of leadership, using source material, increasing

¹ Leta S. Hollingworth, "An Enrichment Curriculum for Rapid Learners at Public School 500: Speyer School," *Teachers College Record*, XXXIX (January, 1938), 299.

accuracy in technical English, curiosity about the world of ideas and the world of affairs, utilizing all the cultural opportunities offered by the community, and building up a technique of research and aesthetic appreciation.¹

All these habits are of great value in helping the gifted pupil to utilize his potentialities to greatest advantage.

According to Turney,² the quality of mind that merits major emphasis in the training of superior pupils is that of "insight" or ability to see relations, which is an indispensable element in reasoning and problem-solving. Indeed, many educators take the position that this ability "is the culmination of the reasoning process." In order that children may develop this power to the maximum, two facts must be recognized: "First, the curriculum . . . must offer continuously the opportunity to grow, through utilizing this power to see relations; in other words, 'insight' must be facilitated and directed. We cannot expect children to learn in a vacuum, nor for that matter, in a near-vacuum of 'activity' undirected toward subject matter." This statement implies that a carefully planned program of instruction, rich in vital content, is essential if the potentialities of the superior child are to be developed to the maximum. Second, due attention must be given to the methods of developing insight and the formation of attitudes. "It is not enough," says Turney, "to consider under the topic of learning the usual knowledge outcomes, with perhaps some training in 'how to think.'" It is necessary, in addition, to realize that both feeling tone and insight are associated with all true learning and that adequate provision for their development must be made through the learning situations set up and the guidance provided. This necessity implies reasonably close supervision of the learning activities of bright pupils; it differs radically from the assumption that they learn most effectively when left largely to their own devices.

HOLDING BRIGHT PUPILS TO ACHIEVEMENT STANDARDS

An additional fact merits emphasis. During the past few years an increasing number of writers have stressed the importance of holding

¹ Helen Louise Cohen, "The Program for Gifted Pupils in New York City," *English Journal*, XXVI (September, 1937), 551.

² Austin H. Turney, "The Psychological Basis of Grouping," *The Grouping of Pupils*, pp. 93-95. Thirty-fifth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1936.

bright pupils to standards commensurate with their ability. Unfortunately this policy is not followed widely. Cohen found no evidence "of efforts made to compel gifted students to practice the rigorous organization of difficult material, to drill themselves in the recognition of thought relationship, to recognize fine distinctions in the use of fine words, to diversify sentence structure, to draw together closely sequential parts, to assign ideas their proper place in the hierarchy to which they belong."¹ The difficulties inherent in such obligations are clearly recognized. Unless, however, vigorous steps are taken to help superior pupils establish appropriate standards and achieve them, it is certain that a vast majority of these pupils will be satisfied with attainments far below their potentialities.

ADJUSTMENTS IN READING PROGRAMS

Inherent in the foregoing discussion is the assumption that growth in ability to read among gifted children comes primarily through the purposeful use of reading in the various content fields, including literature, and in the effort to solve challenging problems commensurate with their ability. In the brief space that remains, attention will be directed specifically to certain adaptations in reading programs designed to meet the needs of superior children.

1. Because of the early attainment of reading readiness, very bright children are prepared for systematic instruction in reading much sooner after entering school than are most children. The view prevails, however, that little emphasis should be given to basic instruction in reading until the beginning of Grade I.

2. Because of the ease with which most superior children master the mechanics of reading, they may be grouped together in the primary grades for the basic instruction needed. The amount of guidance required will be far less as a rule than that needed for average or slow learners. If the size of the school makes it undesirable to attempt to group superior pupils for purposes of basic reading instruction, the gifted children should be excused from many of the class exercises required of other pupils. The extent of the guidance provided at any grade level should be such as to enable them to engage, with a high degree of success, in the reading activities required in the different curriculum fields. Because of their superior ability,

¹ Helen Louise Cohen, *op. cit.*, p. 554.

bright pupils may undertake reading assignments in the content fields much earlier than do the other pupils. By reporting their findings to their classmates, they may greatly extend the experiences and broaden the understandings of all members of the group.

3. The opportunities for superior children in the primary grades to engage in enriching activities, such as those provided in the story hour, the literature period, dramatization activities, free reading, and projects of various kinds, should be greatly extended. In harmony with the principle enunciated earlier, guidance should be provided in these activities in order that pupils may acquire right habits and profit to the maximum from the unique advantages which they enjoy.

4. At the intermediate-grade level, the achievements and the needs of gifted pupils in basic reading habits should be checked regularly, and the pupils should be given whatever guidance is necessary to insure continuous growth in harmony with their ability. Through supplementary assignments and additional projects, wide opportunity should be provided during the reading or literature period, during the study of the content fields, and in the library for them to profit from the enriching and cultural advantages inherent in wide and carefully selected reading. Furthermore, motives for reading should be developed which will stimulate intensive study of the meaning and the significance of what is read. The pupils should weigh carefully and evaluate critically the materials read and should integrate what they read with all that they have learned previously so that new insights, understandings, ways of thinking, and patterns of behavior will result. Through carefully planned guidance, gifted children should also grow rapidly in ability to apply successfully the ideas gained through reading. Furthermore, they should sooner or later acquire the background, the initiative, and the imagination necessary to the solution of more difficult problems than those suitable for their less fortunate classmates. In this connection definite progress should be made in ability to plan, to discover, and to invent. Only as potential leaders acquire these desirable qualities can we hope for social reconstruction and the advancement of civilization.

SOURCES OF PROBLEMS FOR RESEARCH

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BEGINNERS in educational, psychological, and social research, including candidates for graduate degrees and field workers interested in problem-solving, frequently require guidance from their advisers in identifying promising sources of problems. Among the fruitful sources of problems are the various phases of the graduate instructional program. Another approach is the analysis of an area of knowledge or of existing needs. Additional sources are the extension of completed investigations or the "budding-out" of studies in progress. The following sources are discussed in succeeding pages: (1) specialization, (2) instructional program pursued, (3) program of reading, (4) analysis of an area of knowledge, (5) consideration of existing practices and needs, (6) repetition or extension of investigations, and (7) "offshoots" of studies under way.

SPECIALIZATION

The scholarship that should result from thorough specialization in one or more subdivisions of the chosen field of training will reveal the accomplishments of completed research and the problems yet unsolved. In many instances this area of specialization quite appropriately coincides with the worker's vocational choice. The attendant activities may involve the graduate instructional program, reading, writing, teaching assignment, administrative duties, professional organizations, or independent investigation. Examples of types of specialization helpful as a background in the identification and the solution of problems follow.

The German psychologist Ebbinghaus, after receiving his Doctor's degree at Bonn in 1873, was able to devote the next seven years to an independent life of study, spending part of the time in France and England (1: 379-80). Many nationally known research workers of

today wrote their Doctors' dissertations in areas of specialization still represented in their present activities. A few of the doctorate titles may be cited: a leading investigator in factor analysis, "Indexing a Mental Characteristic" (9); an expert in eye-movement photography, *An Experimental Study of the Eye-Voice Span in Reading* (4); and a widely known investigator of reading problems, *Studies of Elementary-School Reading through Standardized Tests* (7). Certain students with at least a graduate year of specialization in the field indicated (plus advanced work in education) found this training the chief factor in undertaking the abbreviated thesis topic named immediately following the field of training: history of education—the history of a municipal university; history—the history of a state department of education; psychology—individual and group competition as motivational factors in achievement in arithmetic; English—modern novels as material for a socialized curriculum; music—a survey of music education in the public schools of a state; health and physical education—guidance in a summer camp; and Latin—trends in the teaching of secondary-school Latin.

A caution against overspecialization is in order. Judd believes that psychology suffers from a lack of fundamental unity because of the tendency of most workers in the field to engage in narrow specialization in their interests and research (10: II, 229-30). It should be remembered that Fechner, who played a leading role in the formal beginning of experimental psychology, at different times in his career was physiologist, physicist, philosopher, psychophysicist, and experimental aestheticist (1: 274). Seldom has G. Stanley Hall been equaled in variety of training, interests, reading, and professional activities.

INSTRUCTIONAL PROGRAM PURSUED

Through lectures, discussions, reports, and reading, adequate graduate courses include numerous suggestions concerning needed research. Stimulating contacts between professors and students outside the classroom should prove unusually profitable in the selection and the development of problems for investigation. Examples of the influence of the professor on his students or of the senior scholar on younger workers are as follows: Weber on Helmholtz, Fechner, and

Lotze; Saint-Simon on Comte, and Comte on Herbert Spencer; James Mill on John Stuart Mill, Bain, and Spencer; Bain on William James, and James on Dewey, Thorndike, and Woodworth; Wundt on Cattell, G. Stanley Hall, Judd, and Titchener; Cattell on Thorndike; Darwin on Galton, and Galton on Pearson (6, 11). It is an interesting intellectual exercise to trace a common thread through the work of several generations of scientists, as in some of the illustrations just cited. Critical papers prepared for a course or a seminar frequently provide helpful leads to the graduate thesis. It is important to keep systematic notes concerning needed research; otherwise such problems may leave one's memory, never to return.

PROGRAM OF READING

Both extensive reading over a range of topics for breadth of background and intensive reading on selected themes for analytical, evaluative purposes are desirable aspects of the graduate program, as well as potential sources of problems. In all scientific endeavor the identification and the solution of problems depend, in a large measure, on the work of predecessors and co-workers. The freedom and the ease with which the results of research have been published during recent decades are primarily responsible for the rapid advance in the sciences.

Examples of the interdependence of research workers are numerous (2: 279-80). Pasteur, because of his horror of useless suffering, probably would not have conducted his experiments on dogs and other animals without the use of an anesthetic, the practical realization of which was made possible by five American experimenters: Long, Jackson, Wells, Morton, and Warren. Banting could not have developed insulin without a method for accurate analysis of blood sugar—a procedure rendered efficient by sixty years of persistent work in hundreds of laboratories. Marconi, in inventing the wireless telegraph, was indebted to many men, including Lord Kelvin, Clerk Maxwell, and Hertz.

In spite of handicaps in securing the works of others, even such early scholars as Roger Bacon, Leonardo da Vinci, and Galileo reveal an impressive knowledge of the writings in their fields of interest (5: 209, 277-78, 316). The tendency to exaggerate Bacon's achieve-

ments is tempered when it is realized that the inspirations for his experiments may be found in Alhazen, Albertus Magnus, Grosse-teste, Abélard, and others. The inventions and the discoveries of Leonardo give an impression of extraordinary originality, but, when checked against the five thousand manuscript pages of his notebooks, his indebtedness to other workers and wide reading are revealed, for he quotes seventy-two medieval and classical authors. Galileo's analysis of the trajectory of a projectile was evolved primarily from facts provided by shipwrights, builders, gunners, and other technicians, and from the work of predecessors.

To cite more recent examples of the emphasis placed on wide reading by research workers, Thomas A. Edison when a boy undertook the impossible task of reading everything in the Detroit Public Library. He later formulated and followed this fundamental rule of research: the first thing to do is to find out everything that everybody else has done, and then begin where they left off (2: 72). Judd, in his psychological autobiography, describes how his own undergraduate training in America and graduate work in Germany included opportunities for unusually extensive reading, and in his parting advice to beginning students he recommends that they select teachers with broad interests and that they read extensively (10: II, 212, 218, 234). Thorndike considers himself an investigator rather than a scholar, in the sense of a person devoting his time to books, but he estimated in 1936 that he had spent well over twenty thousand hours in reading and studying scientific books and journals (10: III, 268). The voracious reading, unusual erudition, and range of information of William James explain his unusual success in bringing together the work of the Scottish, English, French, and German schools of psychology (11: 207-9).

On the other hand, there are striking instances of scholars who have neglected a thorough canvass of earlier writings in their fields of specialization (1: 159; 2: 77-78; and 6: 360-69, 441-42, 504-9). Agassiz found the study of things themselves far more attractive than the writing that had been done about them, saying that he usually contented himself with paging through the volumes of natural history for later use in identifying such objects as he had an opportunity to examine in nature. Descartes had little respect for tradition or the classics and was impatient of interference by the

great men of the past; a type of intellectual radicalism probably enabled Descartes to do more original work than might otherwise have been possible. Comte, in the later years of his life, practiced what he called "cerebral hygiene," a custom of refraining from reading the books of other social thinkers, with the consequence that his own thinking, both scientific and philosophical, was not always abreast of the times. The truth is that a synthetic thinker like Comte, with an encyclopedic mind, had borrowed ideas from many predecessors, even though he recognized only three such persons in founding a scientific social philosophy—Aristotle, Montesquieu, and Condorcet. Comte was never willing to acknowledge his great debt to Saint-Simon, just as Herbert Spencer never admitted his obligation to Comte. With few exceptions, Sumner paid no attention to the work of other writers in sociology, not even mentioning in bibliography or index the names of Comte, Ward, and Giddings. In his *Folkways* (13), Sumner does not list a single great contemporary in psychology, not even William James. However, Sumner did draw on the ideas of Spencer, Darwin, Lippert, and Gumpłowicz.

Certain suggestions are made below to guide the graduate student in canvassing special types of educational, psychological, and sociological literature, with particular reference to locating unsolved problems. However, dependence on the ideas of others should not be permitted to stifle originality and initiative. For several centuries before the experimental contributions of Galileo, scientific progress was greatly retarded by too implicit reliance on tradition and on the ideas of the past, particularly the works of Aristotle.

1. Published studies in given fields have been analyzed to determine the frequency with which problems in each major subdivision have been investigated, the gaps or the areas which have received relatively little emphasis in research being thereby indicated.

2. Authoritative statements, critiques, or summaries of the research accomplishments in a particular field frequently include evaluations of the results reported and the techniques employed, as well as suggestions for further investigation.

3. Discussions of current trends are suggestive of problems for study. Many movements, procedures, and innovations are initiated without careful appraisal either before or after adoption.

4. Prophecies of future developments imply a program of re-

search and implementation of the findings before realization of the predictions made.

5. Lists of studies and theses under way may be helpful in suggesting similar studies involving different conditions, communities, or areas.

6. Analyses of problems for investigation often prove stimulating, although such lists of needed research seldom go far toward development of problem or technique and are not to be viewed as thesis "assignments."

ANALYSIS OF AN AREA OF KNOWLEDGE

To subdivide a particular field into its constituent parts and to identify the major problems in each subarea are tasks requiring insight and background, but they constitute a profitable procedure in discovering needed research. Much of the background for such an analysis comes through the instructional and the reading programs discussed in earlier sections of this article.

CONSIDERATION OF EXISTING PRACTICES AND NEEDS

Beginners in research often are blind to problems close at hand. A systematic analysis of existing practices and needs in a particular field is a challenging intellectual exercise, whether the area represented is local, state, regional, or national. The gaps in knowledge identified through such a canvass should be viewed as challenges to problem-solving rather than accepted in *laissez faire* fashion as insuperable barriers to improvement. Included in such problems are those manifest in actual practice—how a left-handed child learns to write; those made evident by proposals for new types of practice—the unit plan of teaching; and problems brought out by new proposals in the philosophy of society and of education—the effect of school competition on social attitudes (3).

It seems desirable for the student to re-examine his thesis problem in the light of the needs of a new position or of a different professional assignment. The examples given below refer to changes in the thesis topic made by students who had not gone far with the original problem. An assistant state superintendent of public instruction, on entering personnel work in a state university, changed from an investigation of capital outlay for school buildings in the

state to a study of the development of the personnel and guidance program in the higher institution to which he went. A doctorate candidate who became a state supervisor of trade and industrial education gave up a study of the junior colleges in his state in favor of a state-wide survey of the educational opportunities in the field that he supervised. When another doctorate candidate with a year of graduate training in the history of education took up a position in a municipal university, he decided to write the history of the institution rather than a biography of William T. Harris. After appointment as safety-education specialist in the curriculum department of a city system, the particular worker's thesis topic changed from an analysis of the educational concepts in the writings of H. G. Wells to the development and the evaluation of a program in safety education for the city in question. When an elementary-school principal was sent by his school board and superintendent to observe departmentalized practices in the schools of certain large cities, he gave up work on a history of his city school system in favor of an evaluation of the reorganized elementary school.

The suggestion that many beginners in research should study tangible problems representing existing practices and needs parallels the history of research in education. It was natural and sensible that the scientific movement in education should begin with concrete inquiries into the achievement of pupils in spelling and arithmetic. Present attempts to measure such intangible things as attitudes face difficulties that would have prevented similar investigations in the earlier days of the measurement movement. In general it seems best to do the thing near at hand until the way opens to deal with problems farther off or more difficult in approach or complexity (8: 172-73). However, a common criticism of local studies and surveys is the same as that voiced concerning Le Play's concrete, inductive method of social investigation: that this approach did not grasp society as a whole and allowed facts of great importance to escape (6: 416-17). The thirty thousand or more local social surveys in the United States have been, in large part, devices to support local programs of social improvement or to provide graduate theses. As such, these studies have been useful, but few have made fundamental contributions to the social sciences.

REPETITION OR EXTENSION OF INVESTIGATIONS

It is obvious that history is never complete, that surveys of status can be accurate only for the time and the area represented, and that many experiments should be repeated for purposes of verification. The physicist and the chemist defend duplication of experiments, under various conditions in different laboratories, on the ground that some uncontrolled factor may have been present in the original experiment. Lord Rayleigh discovered the inert gases in the atmosphere after hundreds of determinations had failed to indicate their presence (12: 43-44). Faraday was slow to accept the results of other investigators and made it a rule to repeat every experiment about which he wrote or lectured—a practice that led him to the great discovery of electromagnetic induction (2: 75-76).

The problem of unnecessary and wasteful duplication, as when an investigator neglects to canvass the earlier related studies or fails to develop any new hypothesis or technique, is a serious one. Far too many investigations of educational, psychological, and social problems represent relatively sterile duplication of effort, as compared with the results secured from repetition of experiments in the physical sciences, in the face of a multitude of difficulties that challenge human persistence and ingenuity to arrive at sound solutions.

OFFSHOOTS OF STUDIES UNDER WAY

Sometimes a problem, method, or discovery that "buds out" of an investigation in progress proves more fruitful than the original line of research. Thorndike (10: III, 269) describes three methods of work, with a preference for the last: (1) to observe and think about the facts that come our way; (2) to gather deliberately, by observation or experiment, any promising facts that can be readily secured; and (3) to put an important question and then strive in every way possible for facts to answer it. In the third approach, the very doing of one part of the work may cause the investigator to think of another line of attack. Sometimes fruitful methods come to mind late in the course of an investigation. The idea of the delayed-reaction experiment, as a method of studying animal mentality, came to Thorndike after two years of work with animals. His idea that the difficulty of a task for intellect (or any other ability) can be measured only in

the case of a task composed of enough elements to involve all of intellect (or of the ability) came after thirty years of study of intellect and after more than a year of special investigation of means of measuring difficulty for the intellect.

Numerous other examples of problems or discoveries arising as offshoots of work under way are available (2: 17, 87-90, 163, 169-70). Illustrations with applications to the field of medicine follow. When Pasteur was injecting into chickens the microbes that cause cholera, owing to a shortage of fresh chickens he happened to include two that had previously recovered from the disease. Instead of dying from the virulent dose of cholera germs, these two chickens were not affected in the least—a circumstance which led Pasteur unexpectedly to the principle of immunization. Emil von Behring was testing out the theory that diphtheria might be cured by means of some chemical when he discovered that an antitoxin for diphtheria could be made from the blood of an animal that had recovered from the disease. When the French physicist Becquerel was experimenting with radium, he happened to carry a small quantity in his pocket and soon found that the effects of the radium destroyed the tissue of his skin. This discovery led to the use of radium in the treatment of cancer.

The areas of invention and industry are replete with examples of research from which important offshoots have "budded out." William Perkin, in trying to convert aniline into quinine, made instead the first of the aniline dyes, purple mauve. Edison was working with a piece of lampblack mixed with tar (prepared for use in his telephone transmitter) when he hit on the idea of using this material as a filament for the incandescent lamp; it worked, although this particular material did not prove good enough for commercial use. Irving Langmuir, when investigating the so-called "Edison effect," a blue glow that sometimes appears on the filaments of incandescent lamps, made a scientific and practical discovery soon put to use in the low-voltage high-power vacuum tube for long-range radio transmission. Willis R. Whitney, in an effort to utilize the mercury arc as a source of light, discovered new facts that made possible its application in an important unexpected field, the alternating-current rectifier. His apt statement concerning the "budding-out" of the prob-

lem is: "We found nature easy to follow and difficult to drive. We usually wanted what she gave for our seeking, but we could seldom get exactly what we thought we wanted at the time. We wanted light. She gave us rectifiers" (2: 270).

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LIMITATIONS ON FEDERAL CONTROL OF EDUCATION¹

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THE PROBLEM OF FEDERAL AID TO EDUCATION

IT HAS been urged that the federal-state system is more historical than rational and that the functional evolution of American economy has made centralization inevitable and necessary. Furthermore, it is maintained that the dichotomy of federal and state power, as conceived during the formative period of American history, must give way to a pragmatic concept of extended federal responsibility. Accordingly, federal aid to education is considered analogous to relief, social security, old-age benefits, bank-deposit insurance, unemployment compensation, and conservation of natural resources. In this sense, education is a national problem, not a problem for each state as an individual unit. The governmental process has evolved functionally from a theoretical federal-state system of "divided" sovereignty, in which the states and the federal government were autonomous in their respective spheres, to a system in which the federal government has enlarged its scope and powers to such an appreciable extent that state sovereignty has been measurably decreased.

The bill of 1939 providing federal aid to education, which failed to pass, gave a semblance of legal recognition to the actual existence of this accentuated federal power. It attempted by statute to delimit that power to disbursing rather than policy-making functions. Thus administration of the schools, determination of curriculums, methods of instruction, processes of education, and selection of personnel were to remain under state control. No change was contemplated in the so-called "separate but equal" educational facilities for

¹ The preparation of this article was made possible through the co-operation of the Work Projects Administration, O.P. 665-54-3-387.

white and Negro children in the southern states except that provision was made for a just and equitable apportionment. The proposed grants-in-aid under the bill were to be given to the states after the United States Office of Education had approved the purpose for which the states intended to spend the grants.

The bill provided for grants to the states for the improvement of public elementary and secondary schools, adult education, rural library service, co-operative educational research, demonstration and administration, and for the education of children residing on federal reservations and at foreign stations. Any state desiring to secure such a grant-in-aid was required to constitute its treasurer or corresponding official the trustee of the fund apportioned to the state, provide for an adequate system of auditing accounts, make reports, and arrange for apportionment to its local school jurisdictions in such a manner as to equalize educational opportunity.¹

CONSTITUTIONAL LIMITATIONS ON THE GRANT-IN-AID DEVICE

Bittermann defines a grant-in-aid as follows:

[A grant-in-aid] is a payment made by a central to a local authority to defray part of the cost of a service administered by the local authority, usually subject to some conditions set by the central government, which may inspect and partially control the service and, if conditions are not satisfactory, withhold future payments of the grant.²

The federal grant-in-aid under the proposed bill involved certain aspects of control relating only to disbursing functions. However, it is contended that, since education is a state activity, it is not amenable to this type and quantity of federal control. Education is not regarded as a federal activity since no mention is made of it in the enumeration of federal powers in the Constitution of the United

¹ The provisions of the bill inferentially recognized the discrepancies in state ability to finance education. For investigation of this concomitant problem see:

a) John A. H. Keith and William C. Bagley, *The Nation and the Schools*. New York: Macmillan Co., 1925.

b) John K. Norton, *The Ability of the States To Support Education*. Washington: National Education Association, 1926.

c) Leslie L. Chism, *The Economic Ability of the States To Finance Public Schools*. Teachers College Contributions to Education, No. 669. New York: Teachers College, Columbia University, 1936.

² Henry J. Bittermann, *State and Federal Grants-in-Aid*, p. 5. New York: Mentzer, Bush & Co., 1938.

States. It is, therefore, an implied state function under the Tenth Amendment, which provides: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." As such a reserved power, education would be subject to the police power of the state. Numerous judicial opinions, both state and federal, support this view. The proponents of federal aid to education admit that education is a state activity but insist that a federal grant-in-aid may be constitutionally given under the general-welfare clause.

The grant-in-aid device has been approved by the United States Supreme Court under the provision that the taxing power may be used to provide for the general welfare in activities fairly analogous to education. Thus a tax imposed for the purpose of providing a system of unemployment insurance is valid because it provides for the general welfare of the United States.¹ A tax levied as part of a national plan for creating a fund from which to pay old-age pensions is also valid under the general-welfare clause.²

The Supreme Court, however, has expressly repudiated all attempts to give the general-welfare provision the status of an independent power under which Congress would be permitted to enact legislation of any character. Thus federal funds may not be used to purchase compliance on the part of individuals with federal regulations, which, if directly enacted as laws, would be unconstitutional because of encroachment on the reserved powers of the states.³

However, the Supreme Court has not invalidated what may be termed "indirect coercion" of the states.⁴ Every conditional grant

¹ *Steward Machine Company v. Davis* (Social Security Case), 301 U.S. 548, 109 A.L.R. 1293, 57 Sup. Ct. Rep. 883, 81 L.ed. 1279 (1937); *Carmichael v. Southern Coal and Coke Company*, 301 U.S. 495, 109 A.L.R. 1327, 57 Sup. Ct. Rep. 868, 81 L.ed. 1245 (1937).

² *Helvering v. Davis*, 301 U.S. 619, 109 A.L.R. 1319, 57 Sup. Ct. Rep. 904, 81 L.ed. 1307 (1937).

³ *United States v. Butler* (A.A.A. Case), 297 U.S. 1, 102 A.L.R. 914, 80 L.ed 477, 56 Sup. Ct. Rep. 312 (1936).

⁴ *Massachusetts v. Mellon and Frothingham v. Mellon*, 262 U.S. 447, 43 Sup. Ct. Rep. 597, 67 L.ed. 1078 (1923). In this suit the state of Massachusetts and a taxpayer attempted to restrain enforcement of the Federal Maternity Act authorizing appropriations from the national treasury to be apportioned among such states as would accept and comply with the provisions which aimed to reduce maternal and infant mortality. The plea was dismissed on the grounds that no burden was imposed on the states, that the federal government was not encroaching on state powers since it called for voluntary

has the practical effect of compelling the states to comply' with federal requirements in order to take advantage of the grant of federal funds and thus reduce their own tax burden. Mr. Justice Cardozo has ably distinguished what he terms "motive" from "coercion"¹ as applied to taxes within the purview of the general-welfare clause. He has indicated in the decision that a tax levied under this clause is "coercive" and not within the constitutional powers of the federal government if its imposition is dependent on the conduct of the taxpayers or that of the state in which they live and if the conduct to be stimulated or discouraged is unrelated to the fiscal need subserved by the tax in its normal operation. However, he concludes that a tax under this clause is constitutional, even if it contains a provision for its abatement upon the doing of an act that will satisfy a fiscal need, provided that the tax and the alternative are approximate equivalents. In this latter situation he indicates that "inducement" or "persuasion" does not amount to coercion.

Mr. Justice Cardozo has suggested other possible limitations on the spending power of Congress under the general-welfare clause. He has evaluated this politico-legal concept of the general welfare in the light of its constitutional evolution:

Congress may spend money in aid of the general welfare. (Constitution, art. 1, sec. 8; *United States v. Butler*; *Steward Machine Company v. Davis*.) . . . Yet difficulties are left when the power is conceded. The line must still be drawn between one welfare and another, between particular and general. Where this shall be placed cannot be known through a formula in advance of the event. There is a middle ground or certainly a penumbra in which discretion is at large. The discretion, however, is not confided to the courts. The discretion belongs to Congress, unless the choice is clearly wrong, a display of arbitrary power, not an exercise of judgment. This is now familiar law. When such a contention

acceptance of the federal act, and that the entire question was a political one and so not subject to judicial decision. Mr. Justice Sutherland, speaking for the court, said: "In the last analysis the complaint of the plaintiff state is brought to the naked contention that Congress has usurped the reserved power of the several states by the mere enactment of the statute, though nothing has been done and nothing is to be done without their consent; and it is plain that the question as it is thus presented, is political and not judicial in character, and therefore is not a matter which admits the exercise of the judicial power."

¹ *Steward Machine Company v. Davis* (Social Security Case), 301 U.S. 548, 109 A.L.R. 1293, 57 Sup. Ct. Rep. 883, 81 L.ed. 1279 (1937).

comes here, we naturally require a showing that by no reasonable possibility can the challenged legislation fall within the wide range of discretion permitted to the Congress (Cases). Nor is the concept of the general welfare static. Needs that were narrow or parochial a century ago may be interwoven in our own day with the well-being of the nation. What is critical or urgent changes with the times.¹

If it be assumed that education is a subject or activity within the wide range of congressional discretion under the general-welfare clause, then a federal grant-in-aid for education, to be otherwise constitutional, should come within the scope of the limitations suggested by Mr. Justice Cardozo: (1) The grant-in-aid must be for the general as distinguished from the particular welfare. (2) The proceeds of the tax from which the grant-in-aid is derived must not be appropriated in advance for a special purpose and kept in a special fund pending disbursement. (3) The tax levy must not be coercive upon the states. (4) The funds must not be used to purchase compliance on the part of individuals with federal regulations which could not be enacted as laws. The legislation for federal grants-in-aid to education so far proposed or adopted has not overstepped the bounds of these judicial prohibitions and, on the basis of these determinants, is clearly constitutional.

Some question may be raised whether education comes within the scope of the general-welfare clause. In the light of our constitutional history, and in terms of the decisions which have appeared in numerous cases in the state courts to the effect that education is a state activity and is governable under the police power of the state, it might rationally be argued that education is not a proper activity for a federal grant-in-aid under the general-welfare clause. However, the Supreme Court has indicated that the choice of subject or activity is with Congress, not with the courts,² and that a taxpayer or

¹ *Helvering v. Davis*, 301 U.S. 619, 109 A.L.R. 1319, 57 Sup. Ct. Rep. 904, 81 L.ed. 1307 (1937).

² *Steward Machine Company v. Davis* (Social Security Case), 301 U.S. 548, 109 A.L.R. 1293, 57 Sup. Ct. Rep. 883, 81 L.ed. 1279 (1937); *Massachusetts v. Mellon* and *Frothingham v. Mellon*, 262 U.S. 447, 43 Sup. Ct. Rep. 597, 67 L.ed. 1078 (1923).

Edward G. Corwin, "The Spending Power of Congress," *Harvard Law Review*, XXXVI (March, 1923), 548-82.

C. K. Burdick, "Federal Aid Legislation," *Cornell Law Quarterly*, VIII (1923), 324-37.

group of taxpayers similarly situated, and not directly affected by the tax for the general welfare, lack the requisite interest in the case or controversy to be proper parties to institute the necessary litigation.¹

Historical precedent also indicates that education is not exclusively a state activity. The most important historical precedent for federal grants-in-aid for education is the Morrill Act. Under this act grants of public lands and land script were made to the several states, which might provide colleges "for the benefit of agriculture and the mechanic arts." No question of the constitutionality of these grants has ever arisen despite the fact that by further acts of Congress of August 30, 1890, and March 4, 1907, such institutions have been receiving from the United States Treasury annual appropriations to assist in the continuation of their work. The Smith-Lever, the Hatch, and the Smith-Hughes acts have had a similar history. Precedent, then, while not an infallible rule or an ultimate source of law, may furnish a guide to the determination of the question whether education is a proper subject of the grant-in-aid device under the general-welfare clause.

LIMITATIONS ON THE GRANT-IN-AID AS A CONTROL MECHANISM

The purpose of a federal grant-in-aid, despite its constitutionality, might still be defeated if the federal government had no power or authority to compel the various states which accepted the grant to use the funds as intended. The requisite element of control would be absent. Accordingly, the grant-in-aid device has been found to be closely analogous to the trust theory. This trust theory has been borrowed from equity jurisprudence to supply the necessary control mechanism. The theory as applied to the grant-in-aid is that the settlor or the grantor of the funds invests a nominal legal title in them in the "trustee" (the state), merely to enable it to carry out the terms of the trust, and gives the equitable or beneficial title to the beneficiary (usually the state school or schools, and not the state itself). All the fiduciary duties which equity jurisprudence imposes

¹ *Massachusetts v. Mellon* and *Frothingham v. Mellon*, 262 U.S. 447, 43 Sup. Ct. Rep. 597, 67 L.ed. 1078, (1923).

upon a trustee are imposed upon the state, for example, the duties of good faith, loyalty, care in administration, account, full disclosure, and distribution in accordance with the terms and conditions of the grant. This theory affords a convenient rationalization upon which the faithful performance of the state may be guaranteed. Ultimately, federal control over such funds is a matter of intention and policy, and it is immaterial what legal or politico-legal theory is adopted by way of analogy to secure the desired result.

Some states,¹ however, have adopted what may be termed a gift theory to wrest control from the federal government once the funds are in the hands of the state for distribution. Under this theory, a university, college, or school is a mere instrumentality of the state, subject to its control and regulation, and the ownership of any funds coming to such instrumentality through federal grants to the state is vested in the state. No cases completely supporting this theory have been found. The decisions so far have relation only to the mechanics of disbursement after the designated custodian for the state receives them. The gift theory, if employed to any appreciable extent by the courts, would obviously defeat the intended purposes of federal grants-in-aid and might result in the abandonment of the grant-in-aid device by the federal government as a control mechanism.

Cases supporting the trust theory of the grant-in-aid have held that federal funds in the custody of a state treasurer or other official are not subject to state constitutional or statutory provisions requiring such officer or board to pay out state funds only after appropriation by the state legislature or upon the order of some other state officer or board.² Another reason for these decisions is the fact that at the time these constitutional provisions and statutes were enacted, no federal grants-in-aid to education or any other activity were contemplated, and the provisions were designed to regulate

¹ *State ex rel. Davis et al. v. Clausen, State Auditor*, 160 Wash. 618, 295 Pac. 751 (1931).

² *State ex rel. Black v. State Board of Education et al.*, 33 Idaho 415, 196 Pac. 201 (1921); *Melgard v. Engleson*, 31 Idaho 411, 172 Pac. 655 (1918); *State v. Searle*, 77 Neb. 155, 109 N.W. 770 (1906); *State Board of Agriculture v. Auditor-General*, 180 Mich. 349, 147 N.W. 529, (1914); *State ex rel. Ledwith v. Brian*, 84 Neb. 30, 120 N.W. 916 (1909).

only disbursement of state funds. Conflicts, then, between state constitutions or statutes on the one hand and federal grant-in-aid legislation on the other must be resolved in favor of the federal government under the trust theory, where it cannot be shown that an outright gift to the state itself was intended. However, in the case of an outright gift, there is no occasion for the application of the trust theory. Here the gift theory, with its judicially placed limitations, should be applied. Where congressional intent cannot be ascertained from the legislation itself, or from the debates in Congress prior to the passage of the legislation, or from other sources of intent, a presumption in favor of a trust should be employed.

The use of the trust theory to secure federal control over federal grants-in-aid to the state is in part determinative of the extent as well as the character of control, since the theory is only a frame of reference in which to categorize particular fact-situations as instances of the legal relationship which is created. This serves to delimit federal control to the extent of the adaptability of the theory to new fact-situations. Control cannot transcend the external limitations of the theory employed. Whether or not a particular fact-situation comes within the compass of the theory depends on the predilections, the biases, and the prejudices of the control personnel. A study of the policies of the United States Office of Education, the rulings of administrative officials, the opinions of attorney-generals, and court decisions should shed some light on quantitative as well as qualitative federal control and should determine whether federal control has been judiciously canalized. Such a study, however, must be left for future investigation.

A superficial examination of case materials and opinions of attorney-generals indicates that federal control over education has, in the past, been limited almost exclusively to disbursing functions and has not extended to policy-making functions. Federal officials, for the most part, have been averse to exercising the pressure on state officials that the grant-in-aid legislation warranted.

Bittermann¹ has found several instances in which federal officials have held up state personnel appointments under grant-in-aid legis-

¹ Henry J. Bittermann, *op. cit.*, pp. 373-74.

lation, and some of these were in connection with agricultural experiment stations. In one of the most recent instances the governor of Mississippi, apparently without cause, dismissed the personnel and replaced the workers with political appointees of his own choice without regard to their qualifications for the positions. The federal government thereupon refused to pay any further instalments of the grant until appointments suitable to both parties were made. No instances of withdrawal of funds for educational activities have been found.

Under the Land-Grant College Acts, federal grants-in-aid have constituted such a small proportion of the total appropriation necessary for the maintenance of the particular schools, colleges, or universities involved that the federal government has been reluctant to withdraw grants-in-aid even though state courts and rulings of state attorney-generals have, in many instances, nullified the intention of the federal legislation.

Federal control of grants-in-aid to education must, then, in the light of past performances be regarded as insignificant and as unlikely to impinge on the right of the state to control education within its physical boundaries. Control in practice has fallen far short of the theoretical implications of control deducible from the trust theory.

In addition to the limitations on federal control arising from the weaknesses inherent in the trust theory and from the actual practice under it, there are also judicially placed constitutional limitations, as previously indicated, on the federal use of the grant-in-aid device. Further, the state has freedom of choice in accepting or rejecting a particular federal grant and need not submit to mere inducement, no matter how inviting the offer may be. The cumulative effect of federal control, then, is in part conditioned by the number of states participating in any particular grant-in-aid. Generally, where acceptance of a grant by a state means contravention of some strong state public policy, a state will not accept unless it will be put to a disadvantage in competition with other states.¹ Competition between states seldom arises in educational activities, and therefore the interest in the maintenance and continuation of such intrenched

¹ *Florida v. Mellon*, 273 U.S. 12, 47 Sup. Ct. Rep. 265, 71 L.ed. 511 (1927).

public policy is likely to outweigh any advantages to be derived from the acceptance of federal grants. Separate schools for white and Negro pupils in the South are illustrative of the type of public policy unamenable to change through the grant-in-aid device, since no southern state would accept educational grants conditioned on consolidation of the schools.

Federal control of education under the grant-in-aid system is also conditioned on whether the particular educational activity fostered and encouraged is a procedure not previously engaged in by the accepting state or whether such an activity is already part of the educational machinery of the state and the federal grant is ancillary to it. In the former instance the state is likely to be more dependent on federal officials to set up, administer, and control the management of the activity, at least until such time as the state educators and administrators familiarize themselves with the procedure. In such a case federal control is most effective. In the latter instance federal rules and regulations are superimposed on an existing structure, and, when discrepancies arise, a compromise is likely to be reached. The effectiveness of federal control will vary from state to state in the same activity.

Federal control over education is also in part dependent on whether the grant-in-aid is direct or indirect, that is, whether the grant is created by legislation for a particular specified purpose or arises out of funds appropriated for some other purpose. Grants-in-aid under the Land-Grant College Acts for vocational education, as distinguished from federal emergency aid to education arising from activities of the Work Projects Administration, are illustrative of this dichotomy. In the latter, federal control is more effective despite the indirect origination of the grant, since management and control are vested in federal officials, no part of whose salary is contributed by the state. Adult Education Projects of the Work Projects Administration afford an excellent illustration of this type of control.

THE MEASUREMENT OF FEDERAL CONTROL

In view of the considerations outlined above, a quantitative measurement of federal control in any given educational activity in a particular state may be made or effected by the assessment of

weights to certain criteria or factors of control. Several such factors may be determined in answer to the following questions: (1) What proportions of the funds are contributed, respectively, by the federal and the state governments? (2) What are the terms and conditions of the grant-in-aid? (3) Which theory—the trust or the gift theory—of the grant-in-aid do the state courts follow? (4) Which government obligates itself to pay the salaries of employees? (5) Which government has the right to select employees? (6) What is the federal administrative policy in connection with the activity? (7) Is the grant direct or indirect? (8) Is the activity a new one in the particular state or ancillary to an already existing state activity? (9) What are the predilections, biases, and prejudices of the federal and state officials involved?

This enumeration of possible factors is not intended as an exhaustive list, but merely as a signpost on the road to the determination of the quantity and the effectiveness of federal control in any given situation. Such an assessment, if it is validly and impartially developed, will be a long step in the direction of evaluating the facts and feelings involved in federal aid to education.

EDUCATIONAL ATTAINMENT OF URBAN YOUTH IN VARIOUS INCOME CLASSES. II

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INTERREGIONAL DIFFERENCES

THE data presented in the preceding half² of this article bore on the urban areas of the United States as a whole, but very decided sectional differences exist in the schooling received by youth. Tables 7 and 8 set forth the educational attainment of white urban youth in four geographical areas of the country: Northeast, North Central, South, and West. Northeast includes urban areas of the New England and the Middle Atlantic states, as classified in the Census. North Central includes urban areas in the East and the West North Central states. South includes South Atlantic and East and West South Central states. West includes the Mountain and the Pacific states. The list of cities surveyed is shown at the end of this article. Because of certain peculiarities of the educational system of the South, that area will be discussed separately.

Western youth of both age groups attained higher education than did youth in any other section. Next in order of attainment are North Central and Northeastern youth. The greatest sectional differences are found in the percentages of youth reaching high school and college. In the West, 90.7 per cent of the white males in the 20-24 age group reached high school, while in the North Central and the Northeastern sections only 79.3 and 70.4 per cent, respectively, reached that level. The corresponding percentages for females are 92.1, 79.0, and 70.4. As is also seen in Table 7, 26.7 per

¹ From the Division of Public Health Methods, National Institute of Health.

² Bernard D. Karpinos and Herbert J. Sommers, "Educational Attainment of Urban Youth in Various Income Classes. I," *Elementary School Journal*, XLII (May, 1942), 677-87.

TABLE 7
CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL
ATTAINMENT, OF WHITE URBAN YOUTH, AGE 20-24, BY AREA
SEX, AND ANNUAL FAMILY INCOME, 1935-36

GRADE OR TYPE OF SCHOOL AND ANNUAL FAMILY INCOME	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER							
	Male				Female			
	North- east	North Central	South	West	North- east	North Central	South	West
All incomes:								
Kindergarten,								
Grade I or II	99.9	99.9	99.6	99.9	99.8	99.9	99.7	100.0
Grade III....	99.9	99.8	99.4	99.9	99.8	99.8	99.6	100.0
Grade IV.....	99.9	99.7	99.1	99.9	99.7	99.7	99.4	100.0
Grade V.....	99.6	99.5	97.7	99.8	99.5	99.5	98.6	99.9
Grade VI.....	99.1	99.1	95.3	99.7	99.0	99.1	96.9	99.8
Grade VII....	96.8	98.0	91.7	99.4	96.7	98.0	93.9	99.5
Grade VIII....	92.1	95.8	82.7	98.6	92.0	96.0	86.8	98.9
High school...	70.4	79.3	79.1	90.7	70.4	79.0	83.8	92.1
College.....	15.6	18.0	18.8	26.7	10.7	12.9	17.0	21.3
Under \$1,000:*								
Kindergarten,								
Grade I or II	99.8	99.8	99.1	99.9	99.8	99.9	99.4	99.9
Grade III....	99.7	99.6	98.6	99.9	99.7	99.8	99.1	99.9
Grade IV.....	99.6	99.5	98.1	99.9	99.5	99.7	98.6	99.9
Grade V.....	99.1	99.1	95.3	99.8	99.1	99.4	96.9	99.7
Grade VI.....	98.2	98.8	90.4	99.6	98.3	98.7	93.5	99.5
Grade VII....	94.1	96.4	84.3	99.1	94.1	96.7	87.7	99.1
Grade VIII....	86.5	92.6	70.3	97.4	85.8	93.2	76.0	98.0
High school...	56.5	70.2	65.0	84.9	56.4	70.1	71.4	87.7
College.....	7.5	11.0	7.8	20.1	5.3	7.1	7.3	16.0
\$1,000-\$1,999:								
Kindergarten,								
Grade I or II	99.9	99.9	99.9	99.9	99.8	99.9	99.9	100.0
Grade III....	99.9	99.9	99.8	99.9	99.8	99.9	99.9	100.0
Grade IV.....	99.9	99.9	99.7	99.9	99.8	99.9	99.9	100.0
Grade V.....	99.7	99.8	99.3	99.9	99.6	99.7	99.7	100.0
Grade VI.....	99.4	99.6	98.6	99.8	99.2	99.5	99.1	99.9
Grade VII....	97.8	98.9	96.5	99.7	97.6	98.8	97.8	99.7
Grade VIII....	94.1	97.6	89.8	99.4	94.1	97.4	92.9	99.3
High school...	74.4	83.2	87.1	93.6	73.8	82.4	90.7	93.9
College.....	15.6	19.2	20.0	25.8	10.0	12.2	17.6	20.5
\$2,000-\$2,999:								
Kindergarten,								
Grade I or II	100.0	99.9	99.8	100.0	99.9	99.9	99.8	100.0
Grade III....	100.0	99.8	99.8	99.9	99.8	99.9	99.7	100.0
Grade IV.....	100.0	99.7	99.8	99.8	99.8	99.9	99.7	100.0
Grade V.....	99.9	99.6	99.7	99.8	99.8	99.9	99.6	100.0
Grade VI.....	99.8	99.6	99.5	99.7	99.6	99.8	99.5	99.9
Grade VII....	98.7	99.2	98.8	99.6	98.9	99.6	99.2	99.8
Grade VIII....	96.4	98.3	95.8	99.4	97.1	99.0	96.8	99.7
High school...	82.0	87.9	94.0	95.0	83.8	89.6	95.6	96.8
College.....	23.0	24.9	32.2	31.7	15.5	22.6	30.8	29.1

* Includes relief and non-relief families with less than \$1,000 annual income.

TABLE 7—*Continued*

GRADE OR TYPE OF SCHOOL AND ANNUAL FAMILY INCOME	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER							
	Male				Female			
	North- east	North Central	South	West	North- east	North Central	South	West
\$3,000 and over:								
Kindergarten,								
Grade I or II	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0
Grade III....	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0
Grade IV.....	99.9	100.0	100.0	99.9	100.0	100.0	100.0	100.0
Grade V.....	99.9	100.0	100.0	99.9	99.9	100.0	99.9	100.0
Grade VI.....	99.8	100.0	99.9	99.9	99.7	99.8	99.6	99.9
Grade VII.....	99.4	99.9	99.3	99.9	98.8	99.6	99.1	99.8
Grade VIII....	98.5	99.6	97.5	99.6	97.6	99.3	97.7	99.5
High school...	89.4	94.3	96.4	97.9	86.4	89.8	96.6	95.8
College.....	37.7	40.5	53.7	54.9	27.5	31.7	46.7	38.4

cent of western males aged 20-24 attained some college education, as against 18.0 and 15.6 per cent of male youth in the North Central and Northeastern areas. For females of the same ages, the percentages are, respectively, 21.3, 12.9, and 10.7.

Sectional differences are much smaller for youth aged 15-19 than for those aged 20-24. For white males aged 15-19 the percentages reaching high school in the West, North Central, and Northeast were 93.1, 84.7, and 80.3; and for females, 94.7, 85.9, and 81.6. Also white youth aged 15-19 in the Northeast, North Central, and West enjoyed relatively more complete education, in terms of grades of school reached, than did the youth five years older.

The regional differences observed with respect to youth of all incomes are apparently due mainly to pronounced regional differences among the lower income classes. Sectional differences in the percentages reaching high school, for example, are far greater for youth with family incomes of under \$2,000 than for youth in the "\$2,000-\$2,999" and the "\$3,000 and Over" groups. Since most of the youth were in the groups under \$2,000, the sectional differences in education of the lower income classes are of considerable importance.

Because of differences between the educational systems of the South and those of the rest of the country, it is difficult to evaluate

TABLE 8
CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL
ATTAINMENT, OF WHITE URBAN YOUTH, AGE 15-19, BY AREA, SEX
AND ANNUAL FAMILY INCOME, 1935-36

GRADE OR TYPE OF SCHOOL AND ANNUAL FAMILY INCOME	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER							
	Male				Female			
	North- east	North Central	South	West	North- east	North Central	South	West
All incomes:								
Kindergarten,								
Grade I or II	99.9	99.8	99.7	99.8	99.9	99.9	99.8	99.9
Grade III....	99.9	99.7	99.4	99.7	99.9	99.8	99.6	99.9
Grade IV.....	99.8	99.6	98.9	99.6	99.9	99.7	99.5	99.9
Grade V.....	99.6	99.4	97.5	99.6	99.8	99.6	98.7	99.9
Grade VI.....	99.1	99.0	95.1	99.4	99.5	99.3	97.2	99.8
Grade VII.....	97.4	97.9	90.3	99.1	98.2	98.5	94.0	99.6
Grade VIII....	93.3	95.3	81.8	98.0	94.8	96.8	87.5	98.9
High school...	80.3	84.7	78.5	93.1	81.6	85.9	84.5	94.7
College.....	4.8	5.7	6.1	8.8	3.8	6.5	7.9	8.6
Under \$1,000:*								
Kindergarten,								
Grade I or II	99.9	99.7	99.4	99.8	99.9	99.9	99.7	100.0
Grade III....	99.8	99.6	98.8	99.7	99.8	99.8	99.4	100.0
Grade IV.....	99.7	99.5	97.7	99.6	99.7	99.7	99.1	100.0
Grade V.....	99.4	99.2	94.7	99.5	99.5	99.5	97.5	100.0
Grade VI.....	98.6	98.4	90.1	99.2	98.9	99.0	94.5	99.8
Grade VII.....	95.7	96.5	81.3	98.5	96.7	97.6	88.4	99.4
Grade VIII....	89.0	92.0	67.7	96.2	91.3	94.6	77.6	98.1
High school...	71.2	77.0	63.0	88.1	73.3	79.5	73.1	91.4
College.....	2.0	3.2	2.1	6.5	1.7	4.3	3.7	6.2
\$1,000-\$1,999:								
Kindergarten,								
Grade I or II	99.9	99.8	99.8	99.9	99.9	99.8	99.9	100.0
Grade III....	99.9	99.8	99.8	99.8	99.8	99.8	99.9	100.0
Grade IV.....	99.8	99.8	99.7	99.7	99.8	99.8	99.8	100.0
Grade V.....	99.7	99.7	99.4	99.7	99.7	99.7	99.6	99.9
Grade VI.....	99.4	99.5	98.4	99.6	99.6	99.6	99.0	99.9
Grade VII.....	98.2	98.9	96.1	99.5	98.8	99.2	97.7	99.8
Grade VIII....	95.3	97.4	89.8	98.9	96.4	98.2	93.3	99.4
High school...	83.9	88.9	87.0	95.2	85.5	89.2	91.1	96.3
College.....	4.9	5.8	6.3	8.0	3.5	5.7	8.0	8.2
\$2,000-\$2,999:								
Kindergarten,								
Grade I or II	99.8	99.9	100.0	100.0	99.9	100.0	99.8	99.9
Grade III....	99.8	99.9	100.0	100.0	99.9	99.9	99.8	99.9
Grade IV.....	99.8	99.9	99.9	99.9	99.9	99.9	99.8	99.8
Grade V.....	99.8	99.9	99.8	99.9	99.8	99.8	99.6	99.8
Grade VI.....	99.7	99.8	99.7	99.8	99.7	99.8	99.5	99.7
Grade VII.....	99.2	99.4	99.1	99.7	99.4	99.5	99.2	99.6
Grade VIII....	97.7	98.5	97.3	99.6	98.0	99.1	98.0	99.4
High school...	90.6	92.3	96.1	97.2	89.4	93.2	96.4	97.4
College.....	7.6	9.2	11.9	12.6	6.3	12.3	12.5	10.4

* Includes relief and non-relief families with less than \$1,000 annual income.

TABLE 8—*Continued*

GRADE OR TYPE OF SCHOOL AND ANNUAL FAMILY INCOME	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER							
	Male				Female			
	North- east	North Central	South	West	North- east	North Central	South	West
\$3,000 and over:								
Kindergarten,								
Grade I or II	99.7	99.9	99.8	99.8	99.8	99.9	99.9	99.6
Grade III....	99.7	99.9	99.8	99.8	99.8	99.9	99.9	99.6
Grade IV.....	99.7	99.9	99.8	99.8	99.8	99.8	99.9	99.6
Grade V.....	99.7	99.8	99.7	99.8	99.8	99.7	99.8	99.6
Grade VI.....	99.7	99.7	99.4	99.8	99.7	99.6	99.7	99.6
Grade VII....	99.4	99.5	98.7	99.8	99.4	99.3	99.0	99.6
Grade VIII....	99.0	99.0	97.6	99.8	98.5	99.0	97.8	99.6
High school....	94.7	96.2	96.0	98.8	90.6	93.4	96.9	97.8
College.....	16.6	17.2	17.5	16.6	12.4	15.7	22.2	17.5

the educational level of southern youth. The data in Tables 7 and 8 indicate that in the South each grade up to Grade VIII was reached by a smaller percentage of youth than in the rest of the country. Probably these differences at the lower levels are real. However, because of the existence in the South of seven-year elementary schools, the apparent difference between the number who attained Grade VIII and high school in the South and in the rest of the country is deceiving. The relatively low percentage of southern youth that reached Grade VIII and the high percentage that reached high school must be considered in the light of the arrangement in grades of the curriculum. Although 60.3 per cent of the southern males in the 20-24 age group attained high school as their highest grade (this percentage does not include those who went on to college), only 3.6 per cent attained Grade VIII as their highest grade, while 9.0 per cent reached Grade VII as the highest grade. (The percentage attaining any grade as highest grade is obtained by subtracting from the cumulative percentage reaching that grade the cumulative percentage reaching the next higher grade.) It is apparent that a large proportion of southern youth who attained high school went there directly from Grade VII so that the percentages that reached high school in the South and in the rest of the country are not strictly

comparable. The percentage reaching college in the South, however, appears to be actually greater than the percentages in the North Central and the Northeastern sections.

TABLE 9

CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL ATTAINMENT, OF COLORED URBAN YOUTH, AGE 20-24, IN VARIOUS INCOME CLASSES, BY SOUTH AND NON-SOUTH AND BY SEX, 1935-36

GRADE OR TYPE OF SCHOOL	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER					
	South			Non-South*		
	All Incomes	Under \$1,000 (Relief and Non- relief)	\$1,000 and Over	All Incomes	Under \$1,000 (Relief and Non- relief)	\$1,000 and Over
Male:						
Kindergarten, Grade I or						
II.....	98.5	98.4	99.6	99.6	99.5	99.8
Grade III.....	96.2	95.8	99.4	99.1	98.9	99.7
Grade IV.....	94.0	93.4	98.9	98.4	98.1	99.4
Grade V.....	83.0	81.8	93.9	95.8	95.1	98.0
Grade VI.....	70.2	68.2	88.0	92.2	90.6	96.6
Grade VII.....	56.4	54.1	77.9	85.5	82.9	92.7
Grade VIII.....	41.5	39.1	63.8	77.8	74.5	87.1
High school.....	35.8	33.3	58.7	60.0	54.8	74.8
College.....	5.9	5.2	12.2	6.4	3.8	13.9
Female:						
Kindergarten, Grade I or						
II.....	98.8	98.7	99.8	99.7	99.7	99.7
Grade III.....	97.2	96.9	99.5	99.4	99.3	99.6
Grade IV.....	95.8	95.5	99.1	98.8	98.7	99.3
Grade V.....	88.0	87.1	96.5	97.0	96.4	98.5
Grade VI.....	77.2	75.8	91.9	93.2	92.2	96.1
Grade VII.....	64.9	63.0	84.4	87.1	85.5	91.8
Grade VIII.....	51.7	49.5	74.5	79.1	76.6	86.0
High school.....	46.1	43.6	71.1	60.1	56.5	70.2
College.....	6.4	4.7	23.7	5.2	3.7	9.5

* Non-South includes the West, Northeast, and North Central geographic divisions.

Statistics for the South, unlike those for the other regions, showed no improvement in the educational status of the youth 15-19 years old as compared with youth five years older. It is probable that the trend toward more complete education for youth is concealed, in the South, by the gradual substitution of eight-year for seven-year

elementary schools, as well as by more complete enrolment at the lower grades, with the resultant greater retardation.

The interregional differences in the educational achievement of colored youth will be considered for the South and Non-South. Non-

TABLE 10

CUMULATIVE PERCENTAGE DISTRIBUTION, ACCORDING TO EDUCATIONAL ATTAINMENT, OF COLORED URBAN YOUTH, AGE 15-19, IN VARIOUS INCOME CLASSES, BY SOUTH AND NON-SOUTH AND BY SEX, 1935-36

GRADE OR TYPE OF SCHOOL	PERCENTAGE OF PERSONS WHO ATTAINED SPECIFIED GRADE OR HIGHER					
	South			Non-South		
	All Incomes	Under \$1,000 (Relief and Non- relief)	\$1,000 and Over	All Incomes	Under \$1,000 (Relief and Non- relief)	\$1,000 and Over
Male:						
Kindergarten, Grade I or						
II.....	99.4	99.4	100.0	99.9	99.9	99.8
Grade III.....	97.9	97.7	99.4	99.6	99.5	99.8
Grade IV.....	95.1	94.7	98.3	99.3	99.2	99.6
Grade V.....	86.4	85.4	96.2	98.5	98.2	99.5
Grade VI.....	75.0	73.4	90.0	96.6	96.0	98.8
Grade VII.....	61.7	59.4	83.1	92.4	91.3	96.1
Grade VIII.....	46.7	43.8	74.5	84.2	81.7	92.2
High school.....	40.0	36.9	69.3	69.4	65.3	82.4
College.....	2.1	1.6	7.3	1.5	0.7	4.0
Female:						
Kindergarten, Grade I or						
II.....	99.6	99.6	99.4	99.8	99.8	99.8
Grade III.....	98.7	98.7	99.1	99.6	99.6	99.7
Grade IV.....	97.5	97.4	99.1	99.4	99.4	99.5
Grade V.....	91.8	91.3	97.5	99.0	98.9	99.2
Grade VI.....	83.7	82.8	93.9	97.4	97.1	98.2
Grade VII.....	73.2	72.0	87.9	94.4	93.5	97.0
Grade VIII.....	59.2	57.4	81.3	88.8	86.9	94.4
High school.....	52.1	50.0	77.3	75.0	71.9	83.9
College.....	3.6	3.1	9.1	2.0	1.3	4.1

South includes the urban areas in the Northeast, the North Central, and the West sections. The educational attainments of colored youth aged 20-24 and 15-19, in each economic class, in the Southern and the Non-Southern urban areas are presented in Tables 9 and 10 and in Figure 3.

In both the South and the Non-South, the educational status of colored youth in the "Under \$1,000" income groups was lower than that of the "\$1,000 and Over" groups. However, the differences are much smaller in the Non-South than in the South. The percentage of colored males aged 20-24 in the "Under \$1,000" income group in the South who attained high school was 33.3, as compared with 58.7 in the "\$1,000 and Over" group, while the corresponding per-

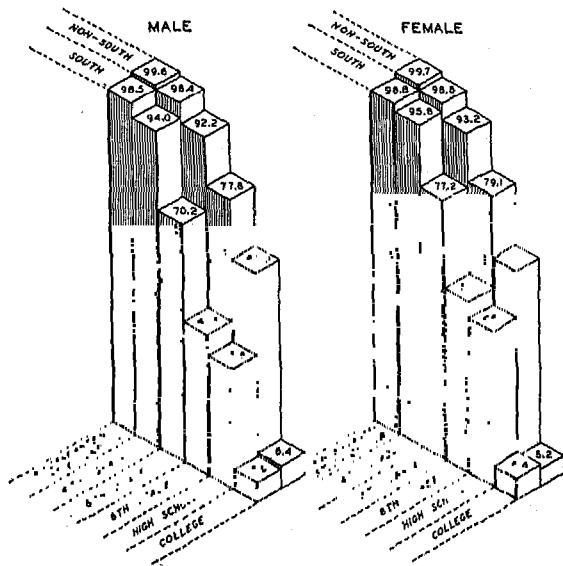


FIG. 3.—Percentages of colored urban youth, age 20-24, in South and Non-South, who had attained specified grade or higher in 1935-36 (based on Table 9).

centages in the Non-South were 54.8 and 74.8. For colored females aged 20-24, the percentages reaching high school in the South were 43.6 and 71.1, and in the Non-South, 56.5 and 70.2.

No significant exceptions to the generally higher level of education among the non-southern colored youth were noted in either age group at any grade below college. At the college level, however, greater proportions of colored youth, notably among females, were found in the South. This relatively better showing of southern colored youth at the college level is probably due to the demand in the South for colored school teachers and to the presence in the South of relatively more colleges for Negroes.

CONCLUDING COMMENT

It should be remembered that the discussion has dealt with contemporary urban youth, primarily native-born. Foreign-born youth constituted a negligible proportion of the total. The educational level of this 15-24 age group is that produced by the contemporary school system in the social and economic setting of the 1930's. As such, it is not affected by the educational level of that section of the population which is twenty-five years of age or older and has long since completed its schooling. The advantage of dealing with the educational level of a group of 15-24 years of age is that the current holding power of the schools is thus revealed; the disadvantage is that there is no indication of the educational level of the rest of the population.

SURVEYED CITIES BY REGIONS

NORTHEAST

Massachusetts—Boston, Fall River, Greenfield, Ipswich, Pittsfield
New Jersey—Bridgeton, Lambertville, Newark, Somerville, Trenton
New York—Buffalo, Hudson, Newark, New York, Penn Yan, Syracuse
Pennsylvania—Duryea, Indiana, Lebanon, Philadelphia, Pittsburgh

NORTH CENTRAL

Illinois—Benton, Chicago, Normal
Michigan—Detroit, Flint, Grand Rapids, Houghton, Port Huron
Minnesota—Chisholm, Minneapolis, St. Paul, Willmar, Winona
Missouri—Chillicothe, Clinton, St. Louis, Springfield
Ohio—Cincinnati, Cleveland, Columbus, Franklin, Lima, Wilmington

SOUTH

Alabama—Birmingham, Eufaula, Gadsden, Greenville, Montgomery
Georgia—Atlanta, Brunswick
Louisiana—Abbeville, Bossier, Minden, Monroe, New Orleans
Texas—Amarillo, Dallas, Houston, Weatherford, Wichita Falls
Virginia—Covington, Farmville, Richmond

WEST

California—Chico, Grass Valley, Jackson, Los Angeles, Napa, Oakland, Vallejo
Oregon—La Grande, Portland, St. Helens, Salem
Utah—Bingham Canyon, Eureka, Salt Lake City, Tooele
Washington—Ellensburg, Olympia, Seattle, Spokane

SELECTED REFERENCES ON FOREIGN EDUCATION

ALINA M. LINDEGREN

United States Office of Education

*

BECAUSE of the war little information about education in the Eastern Hemisphere reached the United States during the past year except from various sections of the British Commonwealth of Nations and, to some extent, from the Scandinavian countries. In Great Britain, Australia, New Zealand, the Union of South Africa, and other parts of the Commonwealth, the reports from education officers reveal a determined effort and, in many instances, remarkable success in carrying on education as normally as possible under war conditions. Most of the publications of the year about education elsewhere in the hemisphere, such as *The End of an Era* and *The Educational Philosophy of National Socialism*, are contributions from scholars and students in the United States. *L'Education physique dans l'enseignement primaire*, from the Bureau of International Education at Geneva, and Volume I of *Svenska folkskolans historia*, a series planned in commemoration of the one-hundredth anniversary of the Swedish elementary-school law of 1842, are notable exceptions.

In the Western Hemisphere the movement toward closer contact through cultural relations has continued and grown. Among publications dealing with this theme which are of particular value to teachers are *Hemisphere Solidarity* and *Inter-American Friendship through the Schools*. Contributions of particular note from Latin America include *Recopilación estadística, años 1938-1939*, from Argentina, and *Instituições culturais e de educação superior no Brasil*.

GENERAL REFERENCES

315. ABEL, JAMES F. *Education under Dictatorships and in Democracies*. United States Office of Education, Education and National Defense Series, Pamphlet No. 15, 1941. Pp. vi+20.

This study "calls attention to the effect of governmental philosophy upon education, with particular reference to the differences existing in this respect between dictatorships and democracies."

316. BUREAU INTERNATIONAL D'EDUCATION. *L'Education physique dans l'enseignement primaire*. Publications du Bureau International d'Education, No. 73. Geneva: Bureau International d'Education, 1941. Pp. 288.
- Data for this study were furnished by forty-seven countries. It is concerned with (1) the place of physical education in elementary-school instruction; (2) aim and importance; (3) program; (4) methods; (5) place where given, medical supervision, and precautions against accidents; (6) general and special preparation of the teachers; and (7) other pertinent features.
317. BUREAU INTERNATIONAL D'EDUCATION. *L'Organisation des bibliothèques scolaires*. Publications du Bureau International d'Education, No. 72. Geneva: Bureau International d'Education, 1940. Pp. 170.
- Compiled from data furnished by forty-three countries. Tells of the organization, administration, and use of school libraries.
318. CARLEY, VERNA A. *Inter-American Friendship through the Schools*. United States Office of Education Bulletin No. 10, 1941. Pp. vi+62.
- The report of an investigation to ascertain the extent to which inter-American studies are already included in the curriculums of elementary and secondary schools in the United States.
319. COOK, DOROTHY E., and RAHBK-SMITH, EVA (compilers). *Educational Film Catalog*. Two Year Supplement, 1940-1941, to the Second Edition, 1939. New York: H. W. Wilson Co., 1942. Pp. xii+214.
- A selected, classified list of 1,087 nontheatrical films, with a separate title and subject index. Includes 127 films on 46 foreign countries.
320. CRAWFORD, C. C. *Hemisphere Solidarity*. United States Office of Education, Education and National Defense Series, Pamphlet No. 13, 1941. Pp. vi+24.
- This study deals "with some of the important problems involved in promoting hemisphere solidarity, with particular application to the relationship between Latin-American nations and the United States. It is designed for use as a teacher's guide in helping high-school students to know and to understand better our Latin-American neighbors, to appreciate their contributions to total hemisphere welfare, and to think through some of the vital problems affecting mutual co-operation among all the nations concerned."
321. "Education in Occupied Poland," *Times Educational Supplement* (London), No. 1346 (February 15, 1941), p. 76; "Education in 'Protected' Czechoslovakia," *ibid.*, No. 1348 (March 1, 1941), p. 100; "State of Education in France," *ibid.*, No. 1350 (March 15, 1941), p. 124; "Education in Nazi-occupied Norway," *ibid.*, No. 1352 (March 29, 1941), p. 145; "Dutch Education under the Nazi Regime," *ibid.*, No. 1354 (April 12, 1941), p. 167; "Education in Occupied Belgium," *ibid.*, No. 1357 (May 3, 1941), p. 204.
- A series of six articles on the effects of the war on education in Poland, Czechoslovakia, France, Norway, The Netherlands, and Belgium.

322. GRAY, GEORGE W. *Education on an International Scale*. New York: Harcourt, Brace & Co., 1941. Pp. xiv+114.
A historical account of the work of the International Education Board in the advancement of science and the promotion of agriculture, in projects in the humanities, and in ventures in general education.
323. KANDEL, I. L. *The End of an Era*. Educational Yearbook of the International Institute of Teachers College, Columbia University, 1941. New York: Teachers College, Columbia University, 1941. Pp. xviii+394.
The eighteenth volume of the series. This yearbook differs from the preceding volumes in that it is written by Kandel himself "as a summary of an era which is now closing."
324. LINDEGREN, ALINA M. *Education and Service Conditions of Teachers in Scandinavia, The Netherlands, and Finland*. United States Office of Education Bulletin No. 9, 1940. Pp. viii+150.
A factual account of service conditions and the education of teachers in Denmark, Norway, Sweden, The Netherlands, and Finland.
325. *Proceedings of the Inter-American Educational and Cultural Conference*. Under the auspices of the Carnegie Endowment for International Peace and the Institute of Inter-American Affairs of the University of Florida, April 14-17, 1940. Gainesville, Florida: Institute of Inter-American Affairs, University of Florida, 1940. Pp. 88.
The proceedings give the complete text of the papers presented during the period of the conference; a résumé prepared by the Committee on the Implications of the Conference; and a paper written by the president of the University of Panama, who was unable to attend in person.
326. SCHATZMANN, IMAN ELSIE. *The Country School at Home and Abroad*. Chicago: University of Chicago Press, 1942. Pp. xvi+234.
A description of rural schools and rural life in Switzerland, Denmark, Sweden, Iceland, England, and Italy, concluding with a brief survey of the general problem of rural education in the United States.
327. SMITH, HENRY LESTER. *Comparative Education*. Bloomington, Indiana: Educational Publications, 1941. Pp. 530.
A comparative study of education in England, France, Germany, Italy, Union of Soviet Socialist Republics, China, Japan, and the United States.

BY COUNTRIES

ARGENTINA

328. CONGRESO ARGENTINO DE EDUCACIÓN. *Homenaje a Sarmiento en el cincuentenario de su muerte (1888-1938)*. San Juan: Talleres Gráficos de N. Uribe Yanzon, 1941. Pp. 400.
Commemorates the fiftieth anniversary of the death of Domingo Faustino Sarmiento, editor and educator, and gives factual data on education in Argentina.

329. MINISTERIO DE JUSTICIA E INSTRUCCIÓN PÚBLICA, DIRECCIÓN DE ESTADÍSTICA Y PERSONAL. *Recopilación estadística, años 1938-1939*. Buenos Aires: Talleres Gráficos de la Penitenciaría Nacional, 1941. Pp. 680. An interesting statistical report with graphs, tables, curriculums, and text, including comparative data for the period 1929-38.

AUSTRALIA

330. *Australia: Official Handbook*. Melbourne: Australian National Publicity Association, 1941. Pp. 148.
This handbook contains a section on education in Australia.
331. QUEENSLAND. DEPARTMENT OF PUBLIC INSTRUCTION. *State Education in Queensland*. Brisbane: A. H. Tucker, Government Printer, 1941. Pp. 54.
In the Foreword the minister of public instruction states, "This brochure has been prepared in order that something might be known of the facilities provided by the state for the shaping of the human being, as John Stuart Mill defined education."
332. SWEETMAN, EDWARD. *Victoria's First Public Educationist*. Australian Council for Educational Research Series, No. 55. Melbourne: Melbourne University Press, 1939. Pp. 124.
A record of the educational work of the Rev. James Forbes, M.A., of King's College, Old Aberdeen, Scotland, who landed in Melbourne in 1838, was its first established minister, and became also Victoria's first public educationist.
333. WESTERN AUSTRALIA. *Report of the Education Department for the Year 1940*. Perth: Government Printer, 1941. Pp. 46.
Annual report of the minister of education. Among the subjects discussed are extension of school age, education of handicapped children, physical education, war-work in the schools, and medical inspection of school children.

BRAZIL

334. DE SOUZA CAMPOS, ERNESTO. *Instituições culturais e de educação superior no Brasil*. Ministério da Educação. Rio de Janeiro: Imprensa Nacional, 1941. Pp. 728.
A historical résumé of institutions of higher education and of culture in Brazil.
335. FILHO, LOURENÇO. *Tendências da educação brasileira*. Biblioteca de Educação Vol. XXIX. São Paulo: Comp. Melhoramentos, 1940. Pp. 162.
Discusses recent trends in education in Brazil.

BRITISH COLONIES

336. BERMUDA. *Report of the Director of Education for the Year 1940*. Hamilton: Government Printer, 1941. Pp. 18.
The official annual report on education in Bermuda.

337. BITTINGER, DESMOND WRIGHT. *An Educational Experiment in Northern Nigeria in Its Cultural Setting*. Philadelphia: University of Pennsylvania, 1941. Pp. xvi+344.

A doctoral dissertation based on eight years of experience in the Sudan and a study of the cultural past of its people.

338. NIGERIA. *Annual Report of the Education Department 1st April 1939 to 31st March 1940*. Lagos: Government Printer, 1941. Pp. 8.

With reference to the effects of the war on education the report states: "The continuance of war conditions has been a severe handicap throughout the year. Many officers have been called up for military or other war duties, school buildings and the headquarters office have been requisitioned, while drastic cuts in expenditure and strict rationing of petrol supplies have reduced the activities of the European inspecting staff to a minimum. The cumulative effect of these disabilities cannot be ignored The disturbances caused by the war in the educational system are likely to be felt for some years to come."

339. ROBISON, L. MCD. *Administration Report of the Director of Education for 1940*. Ceylon Administration Reports, 1940: Part IV. Education, Science, and Art (A.), May, 1941. Colombo: Ceylon Government Press, 1941. Pp. 6.

The official report on education in Ceylon in 1940.

BURMA

340. EDUCATION DEPARTMENT. *Annual Report on Public Instruction in Burma for the Year 1939-40*. Rangoon: Superintendent, Government Printing and Stationery, 1941. Pp. 44+lxiv.

In contrast to the unrest mentioned in the previous report (See Item 349 in the list of references in the June, 1941, number of the *Elementary School Journal*), the introductory chapter states that "the most important statement in this report is that 851,922 boys and girls, young men and young women were schooling in conditions and in an atmosphere relatively free from the disorders and dislocations that have been all too prevalent in the past."

CANADA

341. JACKSON, ROBERT W. B., and FERGUSON, GEORGE A. *Studies on the Reliability of Tests*. Bulletin No. 12 of the Department of Educational Research. Toronto: Department of Educational Research, University of Toronto, 1941. Pp. 132.

An analysis showing that reliability in tests is not the simple concept it was once considered. "There is no such thing as the reliability of tests, but only the reliability of a test in a specified situation."

342. NORRIS, K. E. *The Three R's and the Adult Worker*. McGill Social Research Series. Montreal: McGill University, 1940. (New York: Oxford University Press.) Pp. xxiv+214.

A report of an inquiry among unemployed men in regard to the permanence of the knowledge and skills acquired in the elementary and the lower secondary schools.

CHILE

343. HALL, ROBERT KING, and STANTON, MARGARET GWENLLIAN. "Educating the Chilean Huaso," *Bulletin of the Pan American Union*, LXXV (April, 1941), 216-24.

A description of an experiment in rural education in Chile conducted by the Institute of Rural Information at Santiago.

CHINA

344. CASTLETON, A. G. "Higher Education in War-time China," *Times Educational Supplement* (London), No. 1355 (April 19, 1941), p. 180.

The author tells how "China, facing modern warfare, ruthless, devastating, and prolonged, holds to her ancient tradition and preserves unbroken the continuity of the education of her people."

345. "The Japanese Invasion of China: Effects on Higher Education," *Times Educational Supplement* (London), No. 1358 (May 10, 1941), p. 222; "Chinese Education in War-time," *ibid.*, No. 1360 (May 24, 1941), p. 240.

Discusses the effect of the Japanese invasion on higher education in China.

346. WANG, CHARLES K. A. *An Annotated Bibliography of Mental Tests and Scales*, Vol. II. Publications of the College of Education, Catholic University of Peking, No. 1. Peiping: Catholic University Press, 1940. Pp. viii+698.

Lists 1,735 tests and other devices for the measurement of educational achievement. Except for a section of composite tests, the entries are classified under the various fields and subjects of instruction. (See Item 359 in the list of references in the June, 1941, number of the *Elementary School Journal*.)

COLOMBIA

347. MINISTERIO DE EDUCACIÓN NACIONAL. *Régimen de la enseñanza secundaria*. Bogotá: Imprenta Nacional, 1940. Pp. 146.

Presents the laws and regulations governing secondary education in Colombia.

CUBA

348. OTERO MASDEU, LISANDRO; VALDES DE LA PAZ, OSVALDO; Y SERVIA, CLAUDIO. *Codico escolar*. Havana: Talleres Tipográficos de Carasa y Ca., S. en Co., 1941 (segunda edicion). Pp. 716.

A compilation of laws, statutes, and regulations relating to the entire system of public and private education in Cuba from 1900 to March 18, 1941.

DENMARK

349. BUUR, CHR. "De grundtvig-koldske Skoletanker," *Folkeskolen*, Nr. 5 (30 Januar, 1941), 72-74; Nr. 6 (6 Februar, 1941), 86-88; Nr. 7 (13 Februar, 1941), 104-6.

A discussion of the educational ideas of Grundtvig and Kold.

350. "Notes on Denmark before and after the German Invasion." New York: American Friends of Danish Freedom and Democracy, 1941. Pp. 68 (mimeographed).

Pages 34-37, inclusive, are devoted to the organization of education in Denmark.

ENGLAND*

351. "Air Raid Precautions in Schools and Other Problems Arising Out of the War," *School Government Chronicle and Education Review*, No. 3186 (January, 1941), pp. 75-76, 78; No. 3187 (February, 1941), pp. 91-92.

A discussion of a new circular on air-raid precautions in school based on actual experience and a summary of a model scheme of air-raid precaution in Lancashire.

352. "Children in the Blitz: Action and Reaction during a Raid," *Times Educational Supplement* (London), No. 1363 (June 14, 1941), p. 277.

The account closes with the statement: "It is clear that the children came through the ordeal with flying colors. It is also certain that they should never have had the experience."

353. "Dynamic Technical Education: A Plea for a Policy," *Times Educational Supplement* (London), No. 1350 (March 15, 1941), p. 119.

The summary states that "the immediate policy for technical education is firstly, and urgently, the provision of short intensive practical courses for the training of the adult rank and file. Secondly, the reorganization of technical and secondary education to secure a more effective and adequate balance suitable to the needs of an industrial nation."

354. "Education under Fire," *Times Educational Supplement* (London), No. 1351 (March 22, 1941), p. 132; No. 1363 (June 14, 1941), p. 276.

Accounts of schools and school children in the bombed districts of England and Wales.

355. "Education of the Future," *Times Educational Supplement* (London), No. 1381 (October 18, 1941), p. 495; No. 1382 (October 25, 1941), p. 509; No. 1383 (November 1, 1941), p. 519.

A series of three articles on post-war reconstruction of education. The first deals with fundamental principles; the second, with the foundations of society; and the third, with the recruiting and training of teachers.

* See also Item 616 (Löwe) in the list of selected references appearing in the December, 1941, number of the *School Review* and Item 157 (Livingstone) in the April, 1942, number of the *Elementary School Journal*.

356. MACK, EDWARD C. *Public Schools and British Opinion since 1860*. New York: Columbia University Press, 1941. Pp. xii+512.
Part II of a study of the relationship between the English public school and the ideas and forces which have modeled its development since 1860. Part I appeared in 1938 under the title *Public Schools and British Opinion, 1780 to 1860*.
357. "Schooling in the Blitz," *Times Educational Supplement* (London), No. 1343 (January 25, 1941), p. 41; No. 1344 (February 1, 1941), p. 53. The headmaster of a London Emergency School makes a comparison between the attainment of a sample of elementary-school children under war conditions with that existing previously, and discusses the factors affecting this attainment.
358. STEEGMANN, JOHN. *Cambridge: As It Was and as It Is Today*. London: B. T. Batsford, Ltd., 1941. Pp. viii+120.
Part I traces the growth of the university and colleges from a historical point of view; Part II describes their architecture; and Part III is a description of the Cambridge of today and an attempt to forecast the Cambridge of tomorrow.
359. "The Training of Teachers," *Times Educational Supplement* (London), No. 1349 (March 8, 1941), p. 108; No. 1353 (April 5, 1941), p. 162; No. 1354 (April 12, 1941), p. 174.
The first article of the series is devoted to facts and problems which must be considered prior to reform in the system of teacher education; the second is concerned with the quality of the entrants; and the third, with the improvement of the training-college staffs.
360. "The Universities in War-time," *Times Educational Supplement* (London), No. 1346 (February 15, 1941), pp. 72-73; No. 1347 (February 22, 1941), pp. 84-85; No. 1348 (March 1, 1941), pp. 96-97.
A series of authoritative accounts contributed by the vice-chancellors and principals on the work and conditions at seventeen universities and five university colleges in the British Isles.
361. WORSLEY, THOMAS CUTIBERT. *Barbarians and Philistines: Democracy and the Public Schools*. London: Robert Hale & Co., Ltd., 1940. Pp. 282.
A criticism of the public-school system of England as represented by private schools such as Rugby, Eaton, and Harrow. In his conclusion the author states, "The argument of this book has been designed to show how with an antiquated intellectual training, a totally undemocratic temper and a class-ridden organization, the Public School system is unsuited for the present stage of development."

ESTONIA

362. JACKSON, JOHN HAMPDEN. *Estonia*. London: George Allen & Unwin, Ltd., 1941. Pp. 248.
The last part of the final chapter, entitled "Things That Endure," is devoted to education.

FINLAND

363. CAVONIUS, GÖSTA. "Året 1940—ett händelserikt år i Finlands folkskola," *Svensk lärartidning*, Nr. 1 (4 Januari, 1941), 18-19.

An account of the reconstruction of elementary-school education in Finland in 1940.

364. CAVONIUS, GÖSTA. "Folkskolan i Finland 75 År: Cygnaeus skola och Runebergs anda gav Finlands folk dess styrka," *Svensk lärartidning*, Nr. 19 (10 Maj, 1941), 485, 513-14.

A historical account of the elementary school in Finland written on the occasion of the seventy-fifth anniversary of the founding of the school.

365. MALMBERG, RICH. "Skolan i krigstid," *Lärarinneförbundet*, Nr. 40 (1 Oktober, 1941), 9-10.

The place of the school and the responsibility of the teacher in wartime.

GERMANY

366. BENZE, RUDOLF (editor). *Deutsche Schulerziehung: Jahrbuch des Deutschen Zentralinstituts für Erziehung und Unterricht 1940*. Bericht über die Entwicklung der Deutschen Schule 1933-1939. Berlin: Verlag von E. S. Mittler & Sohn, 1940. Pp. viii+408.

A survey of the development of education in Germany during the period 1933-39. According to the Foreword all German schools, beginning "with the new school year [1939-40]," would operate under unified regulations for the first time in the history of the German people.

367. KNELLER, GEORGE FREDERICK. *The Educational Philosophy of National Socialism*. New Haven, Connecticut: Yale University Press, 1941. Pp. viii+300.

According to the author, this book is an attempt to answer questions such as: "What is the educational philosophy of National Socialism today?" "Why and how is it adapted to contemporary German civilization?" "What are its backgrounds?"

368. WILHELM, THEODOR. "Internationaler Literaturbericht für Erziehungswissenschaft: Deutschland: II. Geschichte der Erziehung und Schule," *Internationale Zeitschrift für Erziehung*, X, Heft 1 (1941), 18-55.

A bibliography of literature published since 1933 on the history of education and the school in Germany.

HAITI

369. LEYBURN, JAMES GRAHAM. *The Haitian People*. New Haven, Connecticut: Yale University Press, 1941. Pp. x+342.

Chapter xv, devoted to "Haitian Problems," includes a section on education.

370. SERVICE NATIONAL DE LA PRODUCTION AGRICOLE ET DE L'ENSEIGNEMENT RURAL. *Rapport annuel: exercice 1938-1939*. Bulletin No. 17. Port-au-Prince: Imprimerie de l'Etat, 1941. Pp. 260.

A report on agricultural extension and rural education in Haiti in 1938-39.

IRELAND

371. EIRE. DEPARTMENT OF EDUCATION. *Report of the Department of Education, 1939-40*. Dublin: Stationery Office, 1941. Pp. 94.

A statistical report devoted mainly to primary, secondary, and vocational education, and to reformatory and industrial schools.

MEXICO

372. BOOTH, GEORGE C. *Mexico's School-made Society*. Stanford University, California: Stanford University Press, 1941. Pp. xii+176.

The purpose of this study, as stated in the Preface, "is to outline the philosophy of the developing 'Socialist schools' of Mexico, and the means by which this philosophy is to be translated into action. More than that, it attempts to show how and why this philosophy developed."

NETHERLANDS EAST INDIES

373. HARDEMAN, J. "Educational System of the Netherlands East Indies," *Overseas Education*, XII (July, 1941), 153-61.

An address on the aims, organization, and problems of education in the Netherlands East Indies, given in the Colonial Department of the London University Institute of Education by a former director of the Education Department of the Netherlands East Indies.

374. VANDENBOSCH, AMRY. *The Dutch East Indies: Its Government, Problems, and Politics*. Berkeley, California: University of California Press, 1942 (third edition). Pp. xiv+458.

One chapter of this publication is devoted to a discussion of education in the Dutch East Indies.

NEW ZEALAND

375. DEPARTMENT OF EDUCATION. *Report of the Minister of Education for the Year Ended 31st December, 1940*. Wellington: Government Printer, 1941. Pp. [95].

The regular annual report comprising the report of the minister and the reports on primary and post-primary education, education of native children, child welfare, higher education, and superannuation of teachers.

376. FITT, A. B. *Seasonal Influence on Growth, Function, and Inheritance*. Educational Research Series No. 17. Wellington: New Zealand Council for Educational Research, 1941. Pp. xii+182.

A synthesis of the findings of various investigators on seasonal fluctuations in human growth, development, and other functions.

377. GRIFFITHS, VERNON. *An Experiment in School Music Making*. Educational Research Series No. 15. Wellington: New Zealand Council for Educational Research, 1941. Pp. xii+104.

An interesting account of the development of practical music-making in the Dunedin Technical School.

378. LA TROBE, W. S., KEYS, G. E. M., and KIRK, A. A. *Studies in Apprenticeship*. Educational Research Series No. 11. Wellington: New Zealand Council for Educational Research, 1939. Pp. 88.

A discussion of apprenticeship in New Zealand from the educational point of view, supplemented by a study of apprenticeship in the electrical and plumbing trades.

379. MCQUEEN, H. C., HARRIS, W. B., BOYES, G. H., GLASGOW, K. W. R., O'HALLORAN, K. H., and WOODS, N. S. *The Background of Guidance*. Educational Research Series No. 16. Wellington: New Zealand Council for Educational Research, 1941. Pp. viii+128.

An investigation into the problems of guidance showing that, while guidance must be forward-looking, it must also take into account where the pupils have come from and what they have done en route to the point they have reached at the time they are given advice.

NORWAY

380. "Norges fjättrade skola," *Svensk lärartidning*, Nr. 38 (20 September, 1941), 942, 952.

Gives a brief discussion of the effect of the war on education in Norway.

PERU

381. BELAUNDE, VICTOR ANDRÉS. "Characteristics of Peruvian Culture," *News Bulletin* (Institute of International Education), XVII (December 1, 1941), 5-8; (January 1, 1942), 6-7.

A brief survey showing that, while "Peruvian culture has conserved without distortion the traditional heritage of the past," it has at the same time contributed its share to the principal social and literary movements of the continent.

POLAND

382. HALECKI, O. "Polish Universities—Past and Present," *News Bulletin* (Institute of International Education), XVI (May 1, 1941), 5-7.

A brief account by a former professor of the University of Warsaw.

PORTUGAL

383. SHERIDAN, LEORA JAMES. *Secondary Education in Portugal: Its Origin and Development*. Philadelphia: University of Pennsylvania, 1941. Pp. 64.

A detailed treatment of the functioning of the secondary-school regulations of October 14, 1936, and a brief summary of the development of education in Portugal from 1073 to 1936.

SCOTLAND

384. "Education in Edinburgh," *Scottish Educational Journal*, XIV (February 7, 1941), 85.
A review of the eleventh annual report of the Edinburgh Education Committee. This constitutes the first survey of a complete year under war conditions.
385. "Education in War Time," *Scottish Educational Journal*, XIV (July 4, 1941), 469.
Emphasizes the need for maintaining the standards of education and striving to improve it in spite of war conditions.
386. "Hard of Hearing Children," *Scottish Educational Journal*, XIV (August 8, 1941), 540.
Arrangements for the education of hard-of-hearing children in Edinburgh.
387. "Intelligence Testing," *Scottish Educational Journal*, XIV (January 10, 1941), 23.
The author urges that each pupil be given an individual intelligence test at least three times during his school career, "on entering school, on leaving the Junior Division, and on leaving the Senior Division of the Primary School," and that the results be entered "as regularly as it is the custom to record the child's medical history. These two records, mental and physical, in conjunction with a record of ground covered and achievement attained, would give a far more complete and valuable picture of the individual than any number of examinations, special tests, or snap judgments and would assuredly prevent a great number of misfits in adult life."
388. MACPHAIL, I. M. M. "The Teaching of History in War-time," *Scottish Educational Journal*, XIV (September 26, 1941), 634-35.
"It should be the history teacher's aim to preserve his standards at their pre-war level and to utilize war-time conditions in order to help in their maintenance."
389. "Senior Leaving Certificate," *Scottish Educational Journal*, XIV (January 3, 1941), 10-11; (August 15, 1941), 551.
A discussion of the changes made in the senior leaving certificate because of the war.
390. "War Effects on Education: Scottish Department's Summary Report," *School Government Chronicle and Education Review*, No. 3196 (November, 1941), pp. 53-54.
The report tells "how Scottish education is being maintained despite dislocations of war and how teachers and children are playing a direct part in the war effort."

SWEDEN

391. COOMBS, MAJOR G. M. "Education in Sweden," *Scottish Educational Journal*, XIV (October 17, 1941), 696-97.
A brief and interesting account of education in Sweden.

392. FREDRIKSSON, VIKTOR (editor). *Svenska folkskolans historia. Första Delen.* Inledande översikt av Edvard Rodhe. Den Svenska folkundervisningen från Reformationen till 1809 av Albin Warne. Utgiven på föranstaltande av Centralstyrelsen för Sveriges Allmänna folkskolläraryrforening. Stockholm: Albert Bonniers Förlag, 1940. Pp. xvi+550.

Volume I of a planned five-volume series on the history of the elementary school in Sweden from the period of the Reformation to about 1940, issued in commemoration of the one-hundredth anniversary of the elementary-school law of 1842. After an introductory survey the present volume covers the period from the Reformation to 1809.

393. HILBERT, ERIK. "En dag på dövstumsskolan Manilla," *Lärarinneförbundet*, Nr. 1 (1 Januari, 1941), 6-9.

The story and work of the school for the deaf at Manilla, Sweden.

394. "Vägen till realexamen," *Svensk lärartidning*, Nr. 21 (24 Maj, 1941), 551-52.

A discussion of the comparative merits of preparation for the *real* or modern examination via the six-year elementary school and the four-year *real* or modern school or via four years of elementary schooling plus the five-year *real* school.

SYRIA

395. PENROSE, STEPHEN B. L., JR. *That They May Have Life.* Princeton, New Jersey: Princeton University Press, 1941. Pp. 366.

A history of the American University of Beirut, 1866-1941, written on the occasion of its seventy-fifth anniversary, from the viewpoint of an American observer.

UNION OF SOUTH AFRICA

396. CAPE OF GOOD HOPE. DEPARTMENT OF PUBLIC EDUCATION. *Report of the Superintendent-General of Education for the Year Ended 31st December, 1940.* Capetown: Mercantile-Atlas Printing Co., Ltd., 1941. Pp. 64.

A report of progress stating that, while there have been no new developments in the educational system, the facilities which existed at the outbreak of the war have been maintained practically unimpaired.

397. PELLIS, EDWARD GEORGE. *Education in South Africa, 1652-1938: European, Colored and Native.* Capetown: Juta & Co., Ltd., 1938. Pp. 148.

In the words of the author: "This is the story of education by drought and by flood, by mountain and plain, by famine and plenty, as well as by the formal method of acquiring knowledge by book, blackboard, and verbal instruction. Life itself, in all its manifold aspects and activities, is education. While, therefore, a great deal of space must be devoted to the formal schooling method by which one generation transmits to the next the cultural heritage of the race, weight is given to all those educative forces and processes, seasonal temperature variations, rainfall, soil, flora, fauna, geographical barriers, lines of communication, and aboriginal inhabitants, which so profoundly affect the character and the culture of a nation."

398. UNION EDUCATION DEPARTMENT. *Report of the Union Department of Education for the Calendar Year 1939*. Pretoria: Government Printer, 1940. Pp. 64.

In addition to educational statistics, the report includes a discussion of education and the community, vocational education, and ten unsolved problems of vocational education.

399. UNION EDUCATION DEPARTMENT. THE NATIONAL BUREAU OF EDUCATIONAL AND SOCIAL RESEARCH. *Bulletin of Educational Statistics for the Union of South Africa, 1940*. Pretoria: Government Printer, 1940. Pp. 80.

A valuable report giving in Part I a historical introduction and a descriptive outline of the present system of education; in Part II, tables of cumulative statistics for a period of years; and in Part III, a bibliography on education in the Union of South Africa.

UNION OF SOVIET SOCIALIST REPUBLICS

400. BEST, HARRY. *The Soviet Experiment*. New York: Richard R. Smith (120 East Thirty-ninth Street), 1941. Pp. viii+120.

This publication contains a chapter on education.

401. KING, BEATRICE. "Education in the U.S.S.R.," *Times Educational Supplement* (London), No. 1371 (August 9, 1941), p. 372; No. 1372 (August 16, 1941), p. 384; "Discipline in Soviet Schools," *ibid.*, No. 1389 (December 13, 1941), p. 592.

Discusses several aspects of education in the Union of Soviet Socialist Republics.

Educational Writings



REVIEWS AND BOOK NOTES

THE ADMINISTRATIVE FUNCTIONS OF TEACHERS.—Most students of education are familiar with the Commonwealth Teacher-Training Study, which identified more than a thousand specific activities of teachers. Many may not recall that only 12 per cent of these activities were strictly instructional, although instruction is properly considered the most important single function of the teacher.

The noninstructional responsibilities of the teacher are the theme of a new volume¹ which, as stated in the Preface, "attempts to provide a systematic and well-balanced treatment of all the areas of educational administration considered fundamental to teachers" (p. vi). The authors, men of training and experience in the field of education, are admirably prepared to deal with the topics treated in the book.

Much of the material in the volume is not new. The writers have, however, assembled under the three main headings, "Administrative Responsibilities of the Teacher," "Administrative Relations of the Teacher," and "Administrative Problems of Vital Concern to the Teacher," materials which have been scattered through various textbooks, bulletins, and magazine articles dealing largely with the field of school administration.

In the volume are stimulating discussions of the responsibility of the teacher for guidance, for the school curriculum, for the direction of extra-curriculum activities, for school facilities and finance, for records and reports, and for participation in community activities. The relation of the teacher to the federal government, to the state, and to the local school unit is outlined in detail. A review should not fail to commend the chapters dealing, respectively, with professional security, economic security, and social security. These three chapters provide interesting treatments of such current topics as teacher-tenure legislation, teachers' salaries, credit unions, group insurance for teachers, retirement systems, and absence regulations.

Chapter xii, entitled "The Teacher and the School Principal," is one of the best in the book. As long as the workers in a school building maintain the relationships here emphasized, rivalries and jealousies among the personnel will not appear. The entire field of the responsibility of the teacher to his profession, as covered in the chapters dealing with "The Teacher and Teachers' Or-

¹ William C. Reavis and Charles H. Judd, *The Teacher and Educational Administration*. Boston: Houghton Mifflin Co., 1942. Pp. xviii+604. \$3.00.

ganizations," "Preparation for Teaching," "Professional Ethics," and "Improvement of Teachers in Service," is presented in a manner calculated to impress the teacher with the importance of his calling and to challenge him to do his part in making the calling a most respected profession.

One may well question the distribution of space among the various topics. The two chapters dealing with the relation of the teacher to school finance and to the federal government seem unduly detailed for a book of this kind. These chapters appear to have been written from the point of view of the administrator rather than that of the teacher. On the other hand, the responsibility of the teacher for making periodic reports to parents receives relatively scant attention. No mention is made of the diagnostic letter, which in many progressive school systems is replacing the traditional report card. The responsibility of the teacher for pupil attendance is inadequately treated in less than a page.

The volume contains a wealth of excellent material. The selected references at the end of each chapter are well chosen, and the brief summary of each reference adds to its value. Forty-seven tables are distributed throughout the text. The book was prepared for readers of four types:

(1) Students in teacher-training institutions who have had no experience in classroom teaching; (2) teachers in service whose training for administrative or noninstructional duties has been neglected and who now realize the importance of a thorough knowledge of the place of the teacher in educational administration; (3) persons preparing for administrative positions in village, town, and city school systems; and (4) administrators who desire to consider with their teachers the numerous responsibilities and interests of those teachers in the administrative aspects of education [p. v].

The publication should have extensive use among these readers.

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A CHALLENGE TO EDUCATORS.—Important implications for those who are today deeply concerned with the problems of education are raised in the book beginning, "The end of an era has been reached."¹ Although published as the 1941 Educational Yearbook of the International Institute of Teachers College, Columbia University, the volume was prepared in its entirety by Kandel as a summary of an era of education during which much thought was given to education but which was, nevertheless, an era lacking direction. More than a summarization of educational thought and practice during recent years, more than a comparative study of education in various countries, even more than a suggested program for the period of reconstruction to follow is this provocative discussion which fills the pages planned for the contributions from foreign scholars

¹ I. L. Kandel, *The End of an Era*. Educational Yearbook of the International Institute of Teachers College, Columbia University, 1941. New York: Teachers College, Columbia University, 1941. Pp. xviii+394. \$3.70.

who were unable to prepare manuscripts because of the pressures of war activities. Kandel's presentation is a plea for democracy and democratic institutions; no, it is far more than a plea. It is a clear recognition that "the hope of the world lies in education" (p. 2). It is a challenge for educators to re-examine the meaning of democracy. It is a challenge to re-examine educational plans, to see that responsibilities must be shared by the schools in the promotion of a way of life which has meaning and direction for the individual and for society as a whole.

With all the background for which the author is well known in the field of comparative education, Kandel reviews critically the changing attitudes in educational theory that have been characteristic in recent decades—the contributions from child study and psychological research, the child-centered school, and the present trend toward the socially oriented school. The present "ferment" of unrest is compared in the educational developments of various countries in the recent and previous periods, and the effect of the politics of a country on its educational system is analyzed. The thesis that "as is the state, so is education" is emphasized by analytical descriptions of education in the totalitarian systems as contrasted with the administration of education in a democracy. Running through all the descriptive accounts is the underlying challenge to the reader that the decision must be made that the democratic way of life is worth fighting for with every means at our command.

More than half the book is devoted to a consideration of some of the current problems affecting the different levels of education and to a discussion of the responsibilities of the present-day teacher. The concluding chapter, "Toward Reconstruction," is a forward-looking encouragement to organize educational systems that will provide the "right education for the right pupils under the right teachers" (p. 348). In such systems right *methods* as well as right *contents* will be stressed, and the task of the teacher will be "to find out both what the pupil can and ought to do, and then *help* him to do it" (p. 349), rather than merely *letting* the pupil do just what he wants to do or *making* him do what someone else thinks he ought to do. Toward the achievement of this end, numerous suggestions that have been proposed also by other students of education are summarized: (1) inclusion of a sound program of physical welfare, to be worked out co-operatively between the school and other public-spirited agencies; (2) provision of nursery schools (although the author does not fail to recognize the inherent danger in over-rationalizing the arguments for nursery schools); (3) extension of the period of compulsory education; (4) articulation of the various units of the educational system (recognizing that, in general, the "type of education developed in the past for a selected group is not suited to the needs or abilities of the new clientele" [p. 363]); (5) extensive provision for adult education; and (6) cultivation among students and staff in institutions of higher education of a realization of, and concern for, the problems of the day and the needs of the community.

Here, then, is deep concern for utilizing education for reconstructing the ideal of democratic living. Here, then, is recognition of the need for sympathetic understanding of the individual but no dodging of the issue that perhaps our present emphasis on the growth and development of free personalities has "succeeded only in producing individuals without faith because education failed to give them any meaning for life" (p. 384). Here, then, is a challenge! The reader must not expect ready answers to the challenge. He must expect to be left seeking the solutions for numerous and vital problems which are brought into the focus of our present economic and political turmoil. He must expect to continue his thinking and analysis long after he has laid the book aside.

DOROTHY T. HAYES

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DEVELOPING UNDERSTANDING OF BASIC FACTORS UNDERLYING NATIONAL SECURITY.—A compact book¹ provides an interpretative exposition of the social and educational ideas of Harcourt A. Morgan, but no attempt is made to translate the ideas into a specific educational program. *Our Common Mooring* surveys the physical and social forces that should govern the redirection of American education, which is widely recognized to be necessary, and sketches, in broad terms, the implication of those forces for education. The book focuses its attention on the southeastern section of the country, but there is little in it that does not have nation-wide applicability.

The fundamental thesis of the book is stated in words which have more significance today than they had when they were written, before the outbreak of war: "Education must, if it be concerned with the real problem of preserving democracy, give us an insight into the basic factors upon which the permanent security of the people and this nation rests" (p. 2). The factors upon which our security ultimately depends are, broadly, nature and culture. The primary—the telic—task of education is to give all people a common understanding of basic natural laws and of the kind of culture that we must have if we are to live in harmony with one another and with nature.

Understanding of the need of conserving the thin and precious layer of topsoil and, in particular, its exhaustible mineral elements is vital to life itself. Concentrated industrialization, one-crop farming, and other relatively recent developments have interfered with the functioning of the natural plan by which nature provided the return of essential elements to the earth. Knowledge, leading ultimately to action, is necessary if we are to solve the problems posed by such modern developments. The social implication of such knowledge is stressed: "Our dependence upon the source of sustenance is a shared interest that is more vital than all the interests that tend to separatism of races, nationalities, and localities" (pp. 17-18). "Our common mooring" is the earth.

¹ Ellis F. Hartford, *Our Common Mooring*. Prepared for the Advisory Panel on Regional Materials of Instruction for the Tennessee Valley. Athens, Georgia: University of Georgia Press, 1941. Pp. xvi+84. \$1.25.

The high responsibilities of education which are sketched in this volume cannot be fulfilled, it is insisted, by piecemeal additions to the curriculum. Even a complete reorientation of education is insufficient, in itself, to effect fundamental social improvements. What is needed is an integrated approach on the part of the schools and other social agencies, such as is now being witnessed in the T.V.A. area. Education can play a dynamic part in developing the skills and the understanding required for attacking the problems of a region or those of the nation. Thus conceived, education is not confined to the classroom; it is a lifelong process, comprehensive in character, concerned with the shaping of society, and constantly changing in the endeavor to meet the shifting needs of participants, to keep up with new research findings, and to apply these findings to the problems of community and nation.

Although *Our Common Mooring* concludes with some discussion of needed changes in the curriculum, in general it shirks the task of showing how its recommendations ought to be implemented. Furthermore, the economic and the psychological obstacles to the adoption of the kind of program that it advocates are not even mentioned, much less discussed. While it is unfair to criticize a book for failure to go beyond its own set limits, these limits do perhaps explain why *Our Common Mooring* is, in some respects, unsatisfying, even though—perhaps because—one is inclined to accept its ideas and arguments. Sharpness is lost in the attempt to state ideas so that they will be acceptable to everyone; sophistication is sacrificed as a result of failure to see—or of unconvincing efforts to minimize—difficulties. At times one wishes that the book were more disputatious. It would benefit, too, if it were written in a more freehanded style. It is a little too condensed, a little too careful.

These, however, are minor cavils. *Our Common Mooring* is an excellent brief statement of some of the factors which must govern the reorientation of education, not merely in the Southeast, but throughout the nation.

SIMON O. LESSER

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AN OVERVIEW OF EDUCATIONAL PHILOSOPHY.—Since the average school man feels that, in order to understand the wide differences of opinion among educational experts, he ought to have a better background in educational philosophy and since he seldom finds time or inclination to read extensively in that field, a brief statement of the rival positions, such as is found in the Forty-first Yearbook of the National Society for the Study of Education,¹ will meet a real need. Here are brought together in one volume five expositions of as many schools of educational philosophy, each written by a prominent advocate of the given

¹ *Philosophies of Education*. Forty-first Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1942. Pp. xii+322. \$3.00 (cloth), \$2.25 (paper).

philosophy. These expositions are preceded by a historical introduction and are followed by a comparative analysis of the major points at issue.

The history of educational philosophies, written by Edward H. Reisner, of Columbia University, traces the development of thought from the Aristotelian world-view through the Thomistic revision of that view to the systems of modern idealism, realism, and experimentalism. Trenchant criticisms are made of all except the last two of these views. Realism and experimentalism are taken to represent the philosophy of the new science, which the writer accepts as the outstanding characteristic of modern times, and the difference between them is held to be one of emphasis only. It is maintained that the educational philosophy of a given period is a reflection of the science of the period and is in no sense deducible, as is argued by present-day Aristotelians, from the prevailing systems of metaphysics.

The exposition of experimentalism, by William H. Kilpatrick, also of Columbia University, discusses education less from the background of technical philosophy than from that of psychology and related institutional life. Taking the aim of education to be that of helping children grow up from a state of initial indifference to full participation in the richest available group life—participation which in a democratic country includes a full share in the active management of group affairs—the author points out how group standards are developed experimentally and how the individual is led to accept or to improve them. Concluding here “(1) that each child learns what he lives; (2) that he learns it as he accepts it in his own heart to act on; (3) that he learns it in the degree that it is important to him and in the degree that it has meaningful connections with what he already knows; and, finally, (4) that what he learns he builds at once into character” (p. 69), Kilpatrick uses the remainder of his chapter to show just what kind of school must be organized to meet these conditions.

The exposition of realism, by Frederick S. Breed, of the University of Chicago, explains the educational implications of the fundamental realistic doctrine—that objects in the material world exist unchanged before, during, and after the process of being known—and contrasts these with the implications of the doctrine of subjectivism, which he ascribes to John Dewey. Although many will disagree with the contention that Dewey supports the beliefs ascribed to him, all will enjoy heartily the workmanlike fashion in which they are demolished.

The chapter on idealism, by Herman H. Horne, of New York University, is probably the best written part of the book. Although most of the contributors to this book know one of the two fields here brought together (philosophy and education) much better than they know the other, Professor Horne is at home in both. In clear and simple language he explains the idealists' contentions “that the enduring substance of the world is of the nature of mind, that the material is explained by the mental” (p. 139), and he traces out the meaning of these contentions for practical education. Although all this may seem to a person of scientific bent not so much an impartial pursuit of truth as a rationali-

zation of wishes, it must be recognized that a view so widely influential in the schools deserves study. Rarely has it been better expounded than it is here.

Aristotelianism in education, as expounded by Mortimer J. Adler, of the University of Chicago, reduces to a defense of the classical curriculum. Much attention is given to a defining of terms and to a defense of the study of philosophy by educators. After two-thirds of the space has been employed in these introductory considerations, syllogistic demonstrations are offered for some of the Aristotelians' leading principles. But at the end of his chapter the author says that "no adequate demonstrations have been completed" (p. 247). The appended reference list offers hope to the persistent.

The philosophy of Catholic education is presented by Rev. William McGucken, of Saint Louis University. Here it is maintained that the understanding of reality given us by the study of metaphysics must be supplemented by the understanding secured through revelation and that a central feature of elementary education must be instruction in religion. The differences between Aristotle and Aquinas are clarified. "With his philosophy of supernaturalism," the author concludes, "the Catholic rests his case for education and for everything else in the world" (p. 287).

This book would have been improved by the inclusion of a critical chapter written by a person not a member of the committee, such as has often been found in the yearbooks of this series, and by some attention on the part of the various writers to the problems of aesthetics, which are almost completely ignored in favor of those of ethics and metaphysics. Also useful would have been an analytical index as well as a comprehensive annotated bibliography, where attention could have been given to schools of philosophy other than the five here discussed and to rival interpretations of the philosophies which are discussed. Idealism of types other than the Hegelian view presented by Professor Horne, for example, and experimentalism in its more strictly logical and epistemological setting might thus have been made more readily accessible to the reader who wishes to go farther than the brief statements here supplied. Nevertheless, the volume as it stands is a valuable introduction to an important field.

DENTON L. GEYER

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THE NATURE OF LEARNING AND ITS IMPLICATIONS FOR TEACHING.—A great many teachers have long wanted a book on the psychology of learning written with emphasis on the meaningful learning activities of school pupils. They will find it in Part II of the current Yearbook of the National Society for the Study of Education.¹

The volume includes an authoritative presentation of the systematic theories

¹ *The Psychology of Learning*. Forty-first Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1942. Pp. xiv + 502. \$3.25 (cloth), \$2.50 (paper).

and viewpoints of various leading scholars. It contains a discussion of the implications of the theories for educational practices, including special discussion of such topics as motivation; emotional behavior as it affects learning; the proper place of drill and practice; the nature and significance of meaning; a comparison of problem-solving with memorizing and other types of learning processes; and a consideration of the organization and the sequence of activities in classes, courses, and the whole curriculum.

The book is well written and of suitable difficulty. It does not disappoint the reader by including only things which teachers already know, and it does not frustrate the reader by including things which he cannot grasp. The reader's response will not be merely a process of recognition and agreement; there is much content which calls for study, learning, and thought. In this respect the yearbook is almost unique in its excellence and is one of the most interesting volumes which the reviewer has seen in a long time.

The yearbook contains instructive and scholarly discussions on the nature of learning by Guthrie, Hull, Sandiford, Gates, Hartmann, and Lewin. These somewhat individual presentations are followed by a chapter in which McConnell competently discusses their differences and similarities and ably effects a marked reconciliation and integration as a basis for developing educational implications.

Such topics as the effect that satisfactions and rewards exert on learning are discussed in various parts of the book by Guthrie, Hull, Gates, and Ryans. The significance, the place, and the effect of drill and practice in learning are reviewed effectively by Guthrie, Hull, and Stroud, Hull's discussion being the most technical and theoretical. Pupil behavior in school learning is covered under its various aspects by Guthrie, Hartmann, Gates, Lewin, Ryans, Anderson, Horn, Brownell, and Buswell—in fact, by nearly all the authors. Transfer of training is discussed by Hull, Sandiford, Gates, and others. The significance of meaning as a factor in learning receives careful consideration in a brief but insightful section by Hartmann and in an excellent chapter by Horn. Some of the most clearly insightful material yet written on the significance of factual knowledge in the educative process is to be found in Lewin's chapter. These are only samples of the content, but they indicate that important topics are discussed in this publication.

The reviewer does not wish to give the impression that the book is uniform in its excellence, but most of the faults seem distinctly minor. Sandiford's historical approach to connectionist theory is tiresome, and his atomistic conception of the Thorndike view of learning is not acceptable. Hartmann's chapter is more effective when it deals with the positive treatment of field theory than when it is concerned with a criticism of bond theory. Horn's idea that the elementary-school curriculum needs to be made less complex and less difficult is capable of being misinterpreted, with serious consequences. These are, of

course, somewhat individual reactions. All readers will find in the book many remarkably insightful passages, frequent suggestions for research, and a multitude of suggestions for classroom technique.

In the reviewer's opinion, the book will be found valuable by theorists, by psychologists in general, and by all school men interested in research, service, and classroom effectiveness. The content is provocative. While one may disagree with certain viewpoints, at the same time one appreciates that those viewpoints are important present-day educational influences. Thus the book focuses attention on the fundamental issues in the psychology of school learning and is, therefore, capable of rendering great service to the development of professional technique among teachers.

HAROLD D. CARTER

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A BASIS FOR TEACHING CONSERVATION.—In a recent publication¹ several men have contributed their views and suggestions for conservation education. Because the authors represent workers from varied environments, it is interesting to have the subject presented from these diversified points of view. All the writers, however, are united in the opinion that there is a great need for conservation education in this country. Sadly enough, this need is now more acute than ever because war accelerates the use of natural resources.

The book is divided into six chapters. The first, entitled "Conservation, Liberty, and Economics," is by Wesley C. Mitchell. The author impresses on us the fact that the concern of conservationists has been with the long-run interests of the human race.

The second chapter, "Conservation of Soil as a Natural Resource," by W. C. Lowdermilk, discusses ways to control soil erosion and to conserve the soil. Results of experiments are shown and explained. By the end of the chapter the reader is forced to agree that soil erosion is, in the end, more devastating than war.

Chapter iii, "The ABC of Conservation," by Paul B. Sears, gives a clear-cut idea of the conservation movement in all its branches. Since the justification of conservation is that it will make for better living for more people for a longer time, the problem of conservation is the problem of making our ways fit the facts as science gives them to us.

In chapter iv, "The Pitfalls of Conservation," Arthur N. Pack warns against foolish kinds of conservation practices. The acid test for real conservation is

¹ *The Foundations of Conservation Education*. Edited by Henry B. Ward, Chairman of Committee on Conservation Education. Education in Conservation, Pamphlet No. 3. Urbana, Illinois: National Wildlife Federation (Henry B. Ward, % University of Illinois), 1941. Pp. vi + 242.

whether it will actually save what is intended to be saved and whether it will accomplish this purpose without destroying in the process something else of equal value. The objective of true conservation is to maintain a proper balance between preservation and use without undue favor to either side. The answer is to be found in education.

Chapter v, "The Role of Applied Science in Conservation and Its Relation to Wildlife," by W. W. Horner and Richard W. Horner, advocates scientific ways of solving the conservation problem. The approach should be in charge of four professional workers: (1) the hydraulic engineer, (2) the sanitary engineer, (3) the soil and agricultural technologist, and (4) the biologist. The marginal effects of water impoundment are set forth, as well as the fact that the extent of pollution of our water supplies by human and industrial wastes presents one of the greatest practical conservation problems faced by science. The authors conclude with a well-worded statement: "Conservation is the realization that we must use our resources prudently as we benefit from them, lest we in the end destroy ourselves. To that end science must be devoted" (p. 134).

The last chapter, by Henry B. Ward, is entitled "Biology as the Foundation of Conservation Education." The first part of this chapter has to do with "Life and Natural Resources." All things and conditions in the world about us serve as natural resources and constitute the means by which life is controlled. It is said: "Water is . . . the builder of the land, the manufacturer of the soil, the developer of life, the great constructive factor among natural resources" (p. 160). The second section considers "Man's Control of Nature": what man has done to the natural resources, the cause of the present situation, and the public attitude toward it. The third part treats "The Educational Problem." The author does not mince words in his attack on the inadequacy of high-school courses in biology. He criticizes the all-too-common practice of dissecting dead things, whereas the course is really supposed to be a study of life. He believes that most college courses in biology are not planned for general education but actually for vocational work and research. A proper study of biology should lay a sound foundation for conservation education. A thorough recognition of values is vital to the present success and future welfare of our nation. This chapter is concluded with the words of Alfred Whitehead, "There is only one subject matter for education, and that is life in all its manifestations."

In the opinion of the reviewer, this publication is the best complete treatise on the topic of conservation that has yet appeared. All biology classes in the country should make a careful study of this excellent book, especially the section entitled "Biology as the Foundation of Conservation Education."

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INDEX TO VOLUME XLII

*

AUTHOR INDEX

- Adams, Olga.—Educational News and Editorial Comment, 401-12
- Arnold, Dwight L.—Spelling Lessons and Ability To Spell, 35-40
- Ballard, Sylvanus A.—Limitations on Federal Control of Education, 755-65
- Barbour, Richmond.—Elementary-School Housing: An Appraisal of a Wartime Expedient, 597-602
- Blough, Glenn O.—Educational News and Editorial Comment, 721-31
- Bolmeier, E. C.—A Co-operative Training Program, 603-8
- Brace, D. K.—Selected References on Elementary-School Instruction (Health and Physical Education), 227-28
- Breed, Frederick S.—Selected References on Elementary-School Instruction (Spelling), 139-41
- Brownell, William A.—Current Practices with Respect to Phonetic Analysis in the Primary Grades, 195-206
- Brueckner, Leo J.—Selected References on Elementary-School Instruction (Curriculum, Methods of Teaching and Study, and Supervision), 60-67
- Buswell, G. T.—Educational News and Editorial Comment, 321-34
- Buswell, G. T.—Selected References on Elementary-School Instruction (Arithmetic), 212-15
- Carter, Vernon G.—Teachers' Opinions on the Teaching of Conservation in the Elementary School, 367-70
- Colburn, Evangeline.—Selected References on Elementary-School Instruction (Library Training), 226-27
- Coleman, J. H., Guiler, W. S., and Johnston, J. W.—Improving the Reading Ability of Elementary-School Pupils, 105-15
- Coon, Beulah I.—Selected References on Elementary-School Instruction (Home Economics), 224-26
- Dakin, W. S.—Making Pupil Activities Serve Constructive Ends, 280-82
- Edwards, Newton.—Educational News and Editorial Comment, 561-75
- Edwards, Newton.—Protecting Democratic Values in a Nation at War, 656-63
- Fuller, Varden, and Tetreau, E. D.—Some Factors Associated with the School Achievement of Children in Migrant Families, 423-31
- Gavian, Ruth Wood.—What the Elementary-School Teacher Should Know about Economics, 578-84
- Gilbert, Doris Wilcox, and Gilbert, Luther C.—Reading before the Eye-Movement Camera versus Reading Away from It, 443-47
- Gilbert, Luther C., and Gilbert, Doris Wilcox.—Reading before the Eye-Movement Camera versus Reading Away from It, 443-47
- Goldin, Myron R., and Rothschild, Seymour.—Stability of Intelligence Quotients of Metropolitan Children of Foreign-born Parentage, 673-76
- Good, Carter V.—Sources of Problems for Research, 745-54
- Goodenough, Florence L.—Selected References on Preschool and Parental Education, 540-49
- Gray, Howard A.—Evaluation and Use of Sound Films, 97-104
- Gray, W. H.—Selected References on Elementary-School Instruction (Handwriting), 142
- Gray, William S.—Education of the Gifted Child: With Special Reference to Reading, 736-44
- Gray, William S.—Educational News and Editorial Comment, 641-53
- Gray, William S.—Selected References on Elementary-School Instruction (Reading), 130-34

- Gray, William S.—Selected References on Teacher Education, 297-305
- Grossnickle, Foster E.—Types of Errors in Division of Decimals, 184-94
- Guiler, W. S., Johnston, J. W., and Coleman, J. H.—Improving the Reading Ability of Elementary-School Pupils, 105-15
- Guilfoile, Elizabeth.—Reality in the Language Program, 41-49
- Hamalainen, Arthur E.—Existing Practices in the Evaluation of Pupil Growth in the Elementary School, 175-83
- Henry, Nelson B.—Educational News and Editorial Comment, 481-95
- Henry, Nelson B., and Reavis, William C.—Selected References on Public-School Administration, 381-88, 464-70
- Herrick, Virgil E.—Educational News and Editorial Comment, 161-72
- Hildreth, Gertrude, and Ingram, Christine P.—Selected References from the Literature on Exceptional Children, 688-705
- Holland, Henrietta.—Difficulties Involved in Long Division and Some Suggestions for Teaching the Process, 585-96
- Ingram, Christine P., and Hildreth, Gertrude.—Selected References from the Literature on Exceptional Children, 688-705
- Irwin, Leslie W., and Paustian, James W.—Safety Patrols in Elementary Schools, 432-42
- Johnson, William H.—Development of the Chicago Program To Aid Pupils Lacking Reading Readiness, 337-46
- Johnston, J. W., Coleman, J. H., and Guiler, W. S.—Improving the Reading Ability of Elementary-School Pupils, 105-15
- Judd, Charles H.—A Complete Program of Social Studies, 498-509
- Karpinos, Bernard D., and Sommers, Herbert J.—Educational Attainment of Urban Youth in Various Income Classes, 677-87, 766-74
- Lindgren, Alina M.—Selected References on Foreign Education, 775-88
- Luckiesh, Matthew, and Moss, Frank K.—The Task of Reading, 510-14
- LuPone, O. J., and Martin, John H.—Social Problems—An Elementary-School Fallacy? 664-68
- McCollum, Eldon L.—Suggestions for an Elementary-School Course in Music, 528-33
- McLaughlin, Katherine L.—Selected References on Kindergarten-Primary Education, 621-27
- McSpadden, Warren W.—Selected References on Elementary-School Instruction (Science), 215-18
- Martin, John H., and LuPone, O. J.—Social Problems—An Elementary-School Fallacy? 664-68
- Moss, Frank K., and Luckiesh, Matthew.—The Task of Reading, 510-14
- Parker, Edith P.—Selected References on Elementary-School Instruction (Geography), 145-46
- Paulay, Sylvia.—Progressivism and Democracy, 418-22
- Paustian, James W., and Irwin, Leslie W.—Safety Patrols in Elementary Schools, 432-42
- Reavis, William C.—Administrative Adjustments Required by Socio-economic Change (Tenth Annual Conference for Administrative Officers of Public and Private Schools), 14-15
- Reavis, William C., and Henry, Nelson B.—Selected References on Public-School Administration, 381-88, 464-70
- Rehage, Kenneth J.—Selected References on Elementary-School Instruction (The Social Sciences), 142-44
- Richey, Herman G.—The Persistence of Educational Progress during the Decade of the Civil War, 358-66, 456-63
- Rolston, Dorothy M., and Spitzer, Herbert F.—Oral and Written Expression of Numbers of Three or More Digits, 116-19
- Rothchild, Seymour, and Goldin, Myron R.—Quotients of Foreign-born Parentage, 673-76
- Smith, Dora V.—Selected References on Elementary-School Instruction (English), 135-39
- Smith, Homer J.—Selected References on Elementary-School Instruction (Industrial Arts), 222-24

- Sommers, Herbert J., and Karpinos, Bernard D.—Educational Attainment of Urban Youth in Various Income Classes, 677-87, 766-74
- Spache, George.—New Trends in Primary-Grade Readers, 283-90
- Spitzer, Herbert F.—The Abacus in the Teaching of Arithmetic, 448-51
- Spitzer, Herbert F., and Rolston, Dorothy M.—Oral and Written Expression of Numbers of Three or More Digits, 116-19
- Stevens, Leila.—Format and Content of Readers, 120-29
- Stevens, Leila.—Poetry Presentation of Second- and Third-Grade Readers, 534-39
- Stock, Earl K.—Practical Measures for Improving the Program of Reading Instruction, 27-34
- Stone, Clarence R.—A Vocabulary Study Based on 107 Primary-Grade Books, 452-55
- Storm, Grace E.—Notes on the Annual Reading Conference, 11-14
- Sunderman, Lloyd F.—A Music Program for Elementary-School Teachers in Training, 207-11
- Taba, Hilda.—Educational News and Editorial Comment, 81-91
- Talley, V. Howard.—Selected References on Elementary-School Instruction (Music), 218-20
- Tetreau, E. D., and Fuller, Varden.—Some Factors Associated with the School Achievement of Children in Migrant Families, 423-31
- Thompson, Stanley I.—Integration of Fifth-Grade Spelling and Handwriting, 347-57
- Traxler, Arthur E.—Comparison of Scores on the Revised Edition and the Older Edition of the Stanford Achievement Test, 616-20
- Treanor, John H.—Building Sentences by Using Models, 669-72
- Tryon, Caroline.—Educational News and Editorial Comment, 241-54
- Tyler, Ralph W.—Educational Adjustments Necessitated by Changing Ideological Concepts, 17-26
- Tyler, Ralph W.—Educational News and Editorial Comment, 1-11
- Ulrich, Robert P.—Grade Placement of Computational Topics in Arithmetic, 50-59
- Van Engen, H.—Unifying Ideas in Arithmetic Instruction, 291-96
- Wade, Newman A.—Instructional Programs in Scottish Primary Schools Compared with Elementary-School Programs in the United States, 515-23
- Whipple, Gertrude.—Elements in Geography Readiness, 256-67
- Whitford, W. G.—Selected References on Elementary-School Instruction (Art), 220-22
- Wilburn, D. Banks.—A Method of Self-instruction for Learning the Easier Addition and Subtraction Combinations in Grade I, 371-80
- Wilking, S. Vincent.—Personality Maladjustment as a Causative Factor in Reading Disability, 268-79
- Wiley, Roy DeVerl.—Arithmetical Processes Needed by Children, 524-27
- Wilson, Frank T.—Early Achievement in Reading, 609-15

SUBJECT INDEX

- Activities, Making Pupil, Serve Constructive Ends, W. S. Dakin, 280-82
- Addition and Subtraction Combinations in Grade I, A Method of Self-instruction for Learning the Easier, D. Banks Wilburn, 371-80
- Administration, Selected References on Public-School, William C. Reavis and Nelson B. Henry, 381-88, 464-70
- Administrative Officers of Public and Private Schools, Conference of, 14-15, 732-33
- American Council on Education, The, G. T. Buswell, 333-34
- Arithmetic, The Abacus in the Teaching of, Herbert F. Spitzer, 448-51
- Arithmetic, Grade Placement of Computational Topics in, Robert P. Ulrich, 50-59
- Arithmetic Instruction, Unifying Ideas in, H. Van Engen, 291-96
- Arithmetic, Selected References on Elementary-School Instruction in, G. T. Buswell, 212-15

- Arithmetical Processes Needed by Children, Roy DeVerl Willey, 524-27
- Art for schools in Nebraska, Traveling exhibits of (Mrs. M. E. Vance, University of Nebraska), 414-15
- Art, Selected References on Elementary-School Instruction in, W. G. Whitford, 220-22
- Association for Childhood Education, Bulletins of, Olga Adams, 405-7
- Association for Childhood Education, Golden Jubilee of the, Olga Adams, 412
- Behavior of Children, Studying the, Caroline Tryon, 241-52
- Book Campaign, National Defense, Olga Adams, 411
- British Teachers To Study American History, Hilda Taba, 91
- Child in school situations, Obstacles to studying the, Caroline Tryon, 252
- Civil War, The Persistence of Educational Progress during the Decade of the, Herman G. Richey, 358-66, 456-63
- Comics, Issues Relating to the, William S. Gray, 641-44
- Community councils aid in educational planning, Hilda Taba, 86-89
- Community, Knowing Our, Virgil E. Herrick, 164-66
- Community, Realistic education for living in a, Hilda Taba, 89-90
- Community, School and, Relationships, Hilda Taba, 81-90
- Community, Study of the, carried on by the teachers, Hilda Taba, 82-84
- Conservation in the Elementary School, Teachers' Opinions on the Teaching of, Vernon G. Carter, 367-70
- Co-operative Training Program, A, E. C. Bolmeier, 603-8
- Curriculum, Continuity as the basis of Fort Smith's, G. T. Buswell, 322-23
- Curriculum, Improving the, G. T. Buswell, 321-25
- Curriculum, Methods of Teaching and Study, and Supervision, Selected References on, Leo J. Brueckner, 60-67
- Curriculum revision in social studies, Green Bay's, G. T. Buswell, 324
- Curriculum Trend, A Significant, Olga Adams, 410-11
- Defense Savings Program, Nelson B. Henry, 485-89
- Democracy, Defend, by Strengthening Schools, Olga Adams, 401-4
- Democracy, Progressivism and, Sylvia Paulay, 418-22
- Democratic Values in a Nation at War, Protecting, Newton Edwards, 656-63
- Democratic way of life, Helping pupils practice the, Newton Edwards, 565-68
- Division of Decimals, Types of Errors in, Foster E. Grossnickle, 184-94
- Division, Difficulties Involved in Long, and Some Suggestions for Teaching the Process, Henrietta Holland, 585-96
- Draftees, The Three R's for the, Hilda Taba, 91
- Economics, What the Elementary-School Teacher Should Know about, Ruth Wood Gavian, 578-84
- Elementary School Journal*, Forty-one Years of the, Ralph W. Tyler, 4-6
- Employment of School Children in Agriculture, Nelson B. Henry, 482-83
- English, Selected References on Elementary-School Instruction in, Dora V. Smith, 135-39
- Evaluation of Pupil Growth in the Elementary School, Existing Practices in the, Arthur E. Hamalainen, 175-83
- Exceptional Children, The Education of, Virgil E. Herrick, 166-69
- Exceptional Children, Selected References from the Literature on, Gertrude Hildreth and Christine P. Ingram, 688-705
- Exchange of Professional Workers with Other American Republics, Hilda Taba, 90
- Federal Control of Education, Limitations on, Sylvanus A. Ballard, 755-65
- Films, Evaluation and Use of Sound, Howard A. Gray, 97-104
- Foreign Education, Selected References on, Alina M. Lindegren, 775-88
- Friendships among boys in Grade VI, Study of the (Seth Phelps, Laboratory Schools, University of Chicago), 495
- Gardening for Brooklyn school children, Classes in (Ellen Eddy Shaw, Brooklyn Botanic Garden, Brooklyn, New York), 492-93

- Geography Readiness, Elements in, Gertrude Whipple, 256-67
- Geography, Selected References on Elementary-School Instruction in, Edith P. Parker, 145-46
- Gifted Child, Education of the: With Special Reference to Reading, William S. Gray, 736-44
- Handwriting, Integration of Fifth-Grade Spelling and, Stanley I. Thompson, 347-57
- Handwriting, Selected References on Elementary-School Instruction in, W. H. Gray, 142
- Health, Laying a foundation of understanding in, Glenn O. Blough, 725-28
- Health and Physical Education, Selected References on Elementary-School Instruction in, D. K. Brace, 227-28
- Home Economics, Selected References on Elementary-School Instruction in, Beulah I. Coon, 224-26
- Housing, Elementary-School: An Appraisal of a Wartime Expedient, Richmond Barbour, 597-602
- Human Development and Education, Conference on, 734-35
- Human Development, Some Recent Research in, Caroline Tryon, 252-54
- Ideological Concepts, Educational Adjustments Necessitated by Changing, Ralph W. Tyler, 17-26
- Individualization of Instruction, G. T. Buswell, 329-31
- Individualization in the schools of New York City, G. T. Buswell, 326
- Industrial Arts, Selected References on Elementary-School Instruction in, Homer J. Smith, 222-24
- Intelligence Quotients of Metropolitan Children of Foreign-born Parentage, Stability of, Myron R. Goldin and Seymour Rothschild, 673-76
- Kindergarten-Primary Education, Selected References on, Katherine L. McLaughlin, 621-27
- Language arts, Practical material in the field of the, G. T. Buswell, 325
- Language Program, Reality in the, Elizabeth Guilfoile, 41-49
- Libraries, Schools and Public, Ralph W. Tyler, 10-11
- Library Training, Selected References on Elementary-School, Evangeline Colburn, 226-27
- Looking Ahead, Virgil E. Herrick, 169-72
- Migrant Families, Some Factors Associated with the School Achievement of Children in, E. D. Tetreau and Varden Fuller, 423-31
- Mobilizing the Resources of Education for Victory, Newton Edwards, 568-69
- Movies as an aid to rural teachers, Use school-made (Mercer County Schools, Princeton, West Virginia), 492
- Music Program for Elementary-School Teachers in Training, A, Lloyd F. Sunderman, 207-11
- Music, Selected References on Elementary-School Instruction in, V. Howard Talley, 218-20
- Music, Suggestions for an Elementary-School Course in, Eldon L. McCollum, 528-33
- Needs of young children studied in Minneapolis, G. T. Buswell, 323
- Neighbors, Knowing Our, Virgil E. Herrick, 161-64
- Numbers of Three or More Digits, Oral and Written Expression of, Dorothy M. Rolston and Herbert F. Spitzer, 116-19
- Nursery school, A mothers' club operates a summer (Doris B. Child, Woodstock, Windham County, Connecticut), 415
- Observational records, What should be written on, Caroline Tryon, 245-46
- Observing, Where opportunities for, may be found, Caroline Tryon, 248-49
- Out-of-school life, What is revealed by the child's, Caroline Tryon, 251-52
- Parents, A bulletin for, of children entering school (John L. Miller, superintendent, Brockton, Massachusetts), 95
- Parents, A handbook informing, about the school, Hilda Taba, 84-86
- Phonetic Analysis in the Primary Grades, Current Practices with Respect to, William A. Brownell, 195-206
- Population Trends and School Enrolment, Nelson B. Henry, 485
- Post-war Planning, Newton Edwards, 574-75

- Preschool Children, The Care of, Olga Adams, 404-5
- Preschool and Parental Education, Selected References on, Florence L. Goodenough, 540-49
- Progressive Education Association Service Center, Pamphlets issued by the, Olga Adams, 407-9
- Public-school system, Informative leaflets on the, Olga Adams, 409
- Radio, Using the, to teach music in country schools (Olin C. Nutter, Cabell County, West Virginia), 92
- Readers, Format and Content of, Leila Stevens, 120-29
- Readers, New Trends in Primary-Grade, George Spache, 283-90
- Readers, Poetry Presentation of Second- and Third-Grade, Leila Stevens, 534-39
- Reading Ability of Elementary-School Pupils, Improving the, J. W. Johnston, J. H. Coleman, and W. S. Guiler, 105-15
- Reading Conference, Notes on the Annual, Grace E. Storm, 11-14
- Reading Disability, Personality Maladjustment as a Causative Factor in, S. Vincent Wilking, 268-79
- Reading, Early Achievement in, Frank T. Wilson, 609-15
- Reading, Evaluating Growth in, William S. Gray, 646-48
- Reading before the Eye-Movement Camera versus Reading Away from It, Luther C. Gilbert and Doris Wilcox Gilbert, 443-47
- Reading, Fifth Annual Conference on, William S. Gray, 648-53
- Reading, A handbook on the use of tests in teaching, G. T. Buswell, 327-28
- Reading Instruction, Practical Measures for Improving the Program of, Earl K. Stock, 27-34
- Reading in the intermediate grades, A bulletin on, G. T. Buswell, 325-26
- Reading and the library, A report on high-school, G. T. Buswell, 327
- Reading the newspaper, Suggestions on methods of, G. T. Buswell, 329
- Reading Readiness in Content Subjects, William S. Gray, 645-46
- Reading Readiness, Development of the Chicago Program To Aid Pupils Lacking, William H. Johnson, 337-46
- Reading, Selected References on Elementary-School Instruction in, William S. Gray, 130-34
- Reading Service Bulletins, William S. Gray, 644-45
- Reading, Seven New Publications for Supervisors and Specialists in, G. T. Buswell, 325-29
- Reading, A source of practical aids for the teacher of, G. T. Buswell, 326
- Reading, The Task of, Matthew Lucchesi and Frank K. Moss, 510-14
- Reading tests for use in special fields, Developing, G. T. Buswell, 328
- Research, Sources of Problems for, Carter V. Good, 745-54
- Rural America—A Challenge to Social and Educational Statesmanship, Newton Edwards, 571-74
- Rural Areas, Education and Community Life in, Nelson B. Henry, 483-85
- Rural Education, G. T. Buswell, 331-33
- Rural schools, Success in high school of pupils from differently organized (Floyd Kennedy, principal, Scottsburg Consolidated School, Scottsburg Township, Indiana), 92-93
- Safety habits among children in school, Developing, Glenn O. Blough, 728-29
- Safety Patrols in Elementary Schools, Leslie W. Irwin and James W. Paus-tian, 432-42
- Science, Selected References on Elementary-School Instruction in, Warren W. McSpadden, 215-18
- Science-teaching and the War, Glenn O. Blough, 721-30
- Scientific attitude, Fostering growth of a genuinely, Glenn O. Blough, 722-25
- Scottish Primary Schools, Instructional Programs in, Compared with Elementary-School Programs in the United States, Newman A. Wade, 515-23
- Sentences, Building, by Using Models, John H. Treanor, 669-72
- Service Bulletins, Olga Adams, 405-9
- Social Problems—An Elementary-School Fallacy? John H. Martin and O. J. LuPone, 664-68
- Social science classes, Use of regional material in, G. T. Buswell, 324-25

- Social Sciences, Selected References on Elementary-School Instruction in the, Kenneth J. Rehage, 142-44
- Social Studies, A Complete Program of, Charles H. Judd, 498-509
- Social studies, Green Bay's curriculum revision in, G. T. Buswell, 324
- Socio-economic Change, Administrative Adjustments Required by (Tenth Annual Conference for Administrative Officers of Public and Private Schools), W. C. Reavis, 14-15
- Sociometric techniques in the study of children, Caroline Tryon, 249-51
- Speech-training based on types of communication (Bernice Elliott, Albuquerque, New Mexico), 94
- Spelling and Handwriting, Integration of Fifth-Grade, Stanley I. Thompson, 347-57
- Spelling Lessons and Ability To Spell, Dwight L. Arnold, 35-40
- Spelling, Selected References on Elementary-School Instruction in, Frederick S. Breed, 139-41
- Stanford Achievement Test, Comparison of Scores on the Revised Edition and the Older Edition of the, Arthur E. Traxler, 616-20
- Teacher Education, Selected References on, William S. Gray, 297-305
- Teaching in the classroom, Importance of superior, Glenn O. Blough, 729-30
- Tenure, New Provisions for Teacher, Ralph W. Tyler, 8-9
- Tours of the neighborhood, Outlying schools arrange (Mabel Kastendiek and Robert L. Grimes, principal, Hale Elementary School, Chicago, Illinois), 493-95
- Traffic court established in an intermediate school (Gertrude Gerock, Hutchins Intermediate School, Detroit, Michigan), 414
- University of Chicago, Changes in Educational Organization of the, Nelson B. Henry, 481-82
- University of Chicago Dinner, The, 335
- University of Chicago's Fiftieth Anniversary: 1891-1941, The, Ralph W. Tyler, 1-4
- University of Chicago, Summer Activities of the, Ralph W. Tyler, 6-8
- Urban Youth in Various Income Classes, Educational Attainment of, Bernard D. Karpinos and Herbert J. Sommers, 677-87, 766-74
- Victory Clubs for Schools, Newton Edwards, 569-71
- Victory Clubs for Schools, More about, Glenn O. Blough, 730-31
- Vocabulary Study Based on 107 Primary-Grade Books, A, Clarence R. Stone, 452-55
- Vocational "movie" made by an eighth-grade class (Luise Reszke, North Fairmont School, Cincinnati, Ohio), 413
- War, Providing opportunities for pupils to contribute toward winning the, Newton Edwards, 562-65
- War Situation, Adjusting the Schools to the, Newton Edwards, 561-68
- Wartime Commission of the United States Office of Education, The, Newton Edwards, 569
- Workshops conducted on the campus, The summer, Ralph W. Tyler, 6-7
- Workshops for the rural teacher held in Michigan, Ralph W. Tyler, 8
- Workshops at the University of Chicago, Summer, Nelson B. Henry, 490-91

EDUCATIONAL NEWS AND EDITORIAL COMMENT

- SEPTEMBER, 1941: The University of Chicago's Fiftieth Anniversary: 1891-1941, Forty-one Years of the *Elementary School Journal*, Summer Activities of the University of Chicago (The summer workshops conducted on the campus; Workshops for the rural teacher held in Michigan), New Provisions for Teacher Tenure, Schools and Public Libraries, Ralph W. Tyler, 1-11;
- Notes on the Annual Reading Conference, Grace E. Storm, 11-14; Administrative Adjustments Required by Socio-economic Change (Tenth Annual Conference for Administrative Officers of Public and Private Schools), W. C. Reavis, 14-15
- OCTOBER, 1941 (Hilda Taba): School and Community Relationships (Study of the community carried on by the

- teachers; A handbook informing parents about the school; Community councils aid in educational planning; Realistic education for living in a community), 81-90; Exchange of Professional Workers with Other American Republics, 90; British Teachers To Study American History, 91; The Three R's for the Draftees, 91; Here and There among the Schools, 92-95
- NOVEMBER, 1941 (Virgil E. Herrick): Knowing Our Neighbors, 161-64; Knowing Our Community, 164-66; The Education of Exceptional Children, 166-69; Looking Ahead, 169-72
- DECEMBER, 1941 (Caroline Tryon): Studying the Behavior of Children (Developing the ability to study the child's behavior; Procedure in studying the behavior of the child; What should be written on observational records; Relations of behavior to the stage of development; Where opportunities for observing may be found; Sociometric techniques in the study of children; What is revealed by the child's out-of-school life; Obstacles to studying the child in school situations), 241-52; Some Recent Research in Human Development, 252-54
- JANUARY, 1942 (G. T. Buswell): Improving the Curriculum (Continuity as the basis of Fort Smith's curriculum; Needs of young children studied in Minneapolis; Green Bay's curriculum revision in social studies; Use of regional material in social-science classes; Practical material in the field of the language arts), 321-25; Seven New Publications for Supervisors and Specialists in Reading (A bulletin on reading in the intermediate grades; Individualization in the schools of New York City; A source of practical aids for the teacher of reading; A report on high-school reading and the library; A handbook on the use of tests in teaching reading; Developing reading tests for use in special fields; Suggestions on methods of reading the newspaper), 325-29; Individualization of Instruction, 329-31; Rural Education, 331-33; The American Council on Education, 333-34; The University of Chicago Dinner, 335
- FEBRUARY, 1942 (Olga Adams): Defend Democracy by Strengthening Schools, 401-4; The Care of Preschool Children, 404-5; Service Bulletins (Bulletins of Association for Childhood Education; Pamphlets issued by the P.E.A. Service Center; Informative leaflets on the public-school system), 405-9; A Significant Curriculum Trend, 410-11; National Defense Book Campaign, 411; Golden Jubilee of the Association for Childhood Education, 412; Here and There among the Schools, 413-15
- MARCH, 1942 (Nelson B. Henry): Changes in Educational Organization of the University of Chicago, 481-82; Employment of School Children in Agriculture, 482-83; Education and Community Life in Rural Areas, 483-85; Population Trends and School Enrollment, 485; Defense Savings Program, 485-89; Summer Workshops at the University of Chicago, 490-91; Here and There among the Schools, 491-95
- APRIL, 1942 (Newton Edwards): Adjusting the Schools to the War Situation (Providing opportunities for pupils to contribute toward winning the war; Helping pupils practice the democratic way of life), 561-68; Mobilizing the Resources of Education for Victory, 568-69; The Wartime Commission of the United States Office of Education, 569; Victory Clubs for Schools, 569-71; Rural America—A Challenge to Social and Educational Statesmanship, 571-74; Post-war Planning, 574-75
- MAY, 1942 (William S. Gray): Issues Relating to the Comics, 641-44; Reading Service Bulletins, 644-45; Reading Readiness in Content Subjects, 645-46; Evaluating Growth in Reading, 646-48; Fifth Annual Conference on Reading, 648-53
- JUNE, 1942 (Glenn O. Blough): Science-teaching and the War (Fostering the growth of a genuinely scientific attitude; Laying a foundation of understanding in health; Developing safety habits among children in school; Importance of superior teaching in the classroom), 721-30; More about Victory Clubs for Schools, 730-31; Conference of Administrative Officers of Public and Private Schools, 732-33; Conference on Human Development and Education, 734-35
- HERE AND THERE AMONG THE SCHOOLS: Using the radio to teach music in

country schools (Olin C. Nutter, Cabell County, West Virginia), 92; Success in high school of pupils from differently organized rural schools (Floyd Kennedy, principal, Scottsburg Consolidated School, Scottsburg Township, Indiana), 92-93; Speech training based on types of communication (Bernice Elliott, Albuquerque, New Mexico), 94; A bulletin for parents of children entering school (John L. Miller, superintendent, Brockton, Massachusetts), 95; Vocational "movie" made by an eighth grade class (Luise Reazke, North Fairmont School, Cincinnati, Ohio), 413; Traffic court established in an intermediate school (Gertrude Gerrock, Hutchins Intermediate School, Detroit, Michigan), 414; Traveling exhibits of art for schools in Nebraska (Mrs. M. E. Vance, University of

Nebraska), 414-15; A mothers' club operates a summer nursery school (Doris B. Child, Woodstock, Windham County, Connecticut), 415; Use school-made movies as an aid to rural teachers (Mercer County Schools, Princeton, West Virginia), 492; Classes in gardening for Brooklyn school children (Ellen Eddy Shaw, Brooklyn Botanic Garden, Brooklyn, New York), 492-93; Outlying schools arrange tours of the neighborhood (Mabel Kaatendiek and Robert L. Grimes, principal, Hale Elementary School, Chicago, Illinois), 493-95; Study of the friendships among boys in Grade VI (Seth Phelps, Laboratory Schools, University of Chicago), 495

Who's Who, 16, 95-96, 173-74, 255, 355-36, 416-17, 496-97, 576-77, 654-55, 735

REVIEWS AND BOOK NOTES

Baisden, Leo B., and Gardiner, Jewel, Administering Library Service in the Elementary School (Hannah Logasa), 476-77

Baxter, Bernice, Teacher-Pupil Relationships (Orville T. Bright), 631-33

Bell, Reginald; Cain, Leo F.; Lamoreaux, Lillian A.; and Others, Motion Pictures in a Modern Curriculum: A Report on the Use of Films in the Santa Barbara Schools. Motion Pictures in Education, No. 6 (Abram W. VanderMeer), 366-8

Brooker, Floyd E., and Herrington, Eugene H., Students Make Motion Pictures: A Report on Film Production in the Denver Schools. Motion Pictures in Education, No. 7 (Abram W. VanderMeer), 366-8

Bruner, Herbert B., Evans, Hubert M., Hutchcroft, Cecil R., Wieting, C. Maurice, and Wood, Hugh B., What Our Schools Are Teaching (Prudence Cutright), 630-31

Bryson, Lyman, The New Prometheus (Floyd T. Goodier), 70-71

Cain, Leo F., Lamoreaux, Lillian A., Bell, Reginald, and Others, Motion Pictures in a Modern Curriculum: A Report on the Use of Films in the Santa Barbara Schools. Motion Pictures in Education, No. 6 (Abram W. VanderMeer), 366-8

Cochran, Blake, Films on War and American Policy. Motion Pictures in Education, No. 4 (Abram W. VanderMeer), 366-8

Cutts, Norma E., and Moserley, Nicholas, Practical School Discipline and Mental Hygiene (Robert E. Stauck), 708-9

De Lima, Agnes, and the Staff of the Little Red School House, The Little Red School House (Paul H. Diederich), 706-7

Dolk, Edward William, Teaching Primary Reading (Delia E. Kibbel), 569-90

Evans, Hubert M., Hutchcroft, Cecil R., Wieting, C. Maurice, Wood, Hugh B., and Bruner, Herbert B., What Our Schools Are Teaching (Prudence Cutright), 630-31

Gardiner, Jewel, and Baisden, Leo B., Administering Library Service in the Elementary School (Hannah Logasa), 476-77

Gerberich, J. Raymond, Greene, Harry A., and Jorgensen, Albert N., Measurement and Evaluation in the Elementary School (Gustav J. Froehlich), 712-13

Gillett, Norma; Greene, Harry A.; McBroom, Maude; and Moscrip, Ruth,

- Building Better English: Step by Step; Day by Day; In School and Out; For Every Need; Manual for "Building Better English: Step by Step" (Marguerite E. Schuler), 153-54
- Gleason, Eliza Atkins, The Southern Negro and the Public Library (DeWitt M. Kelley), 555-56
- Goldberg, George, and Shoobs, Nahum E., Corrective Treatment for Unadjusted Children (Louise W. Putzke), 707-8
- Gray, William S. (compiler and editor), Adjusting Reading Programs to Individuals. Proceedings of the Conference on Reading Held at the University of Chicago, Vol. III (Laura Ulery), 628-30
- Green, Edward B., Measurements of Human Behavior (Andrew W. Brown), 313-15
- Greene, Harry A., Jorgensen, Albert N., and Gerberich, J. Raymond, Measurement and Evaluation in the Elementary School (Gustav J. Froehlich), 712-13
- Greene, Harry A.; McBroom, Maude; Moscrip, Ruth; and Gillett, Norma, Building Better English: Step by Step; Day by Day; In School and Out; For Every Need; Manual for "Building Better English: Step by Step" (Marguerite E. Schuler), 153-54
- Hall, Milton (chairman), Employee Training in the Public Service. A Report Submitted to the Civil Service Assembly by the Committee on Employee Training in the Public Service (Hazel Davis), 390-92
- Hartford, Ellis F., Our Common Mooring (Simon O. Lesser), 792-93
- Hartmann, George W., Educational Psychology (Coleman R. Griffith), 308-10
- Health in Schools. Twentieth Yearbook of the American Association of School Administrators (Arthur R. Turner, M.D.), 552-53
- Herrington, Eugene H., and Brooker, Floyd E., Students Make Motion Pictures: A Report on Film Production in the Denver Schools. Motion Pictures in Education, No. 7 (Abram W. VanderMeer), 306-8
- Hildreth, Gertrude, The Child Mind in Evolution (Jessie Tadd), 709-10
- Hollingshead, Arthur D., Guidance in Democratic Living (Edgar W. Mills), 148-50
- Hopkins, L. Thomas, Interaction: The Democratic Process (Harold T. Ramsey), 231-32
- Horne, Joicey M., The Art Class in Action (William G. Whitford), 312-13
- Hutchcroft, Cecil R.; Wieting, C. Maurice; Wood, Hugh B.; Bruner, Herbert B.; and Evans, Hubert M., What Our Schools Are Teaching (Prudence Cutright), 630-31
- Jack, Harold K., Physical Education for Small Elementary Schools (Carl L. Byerly), 234-35
- Jacobson, Paul B., and Reavis, William C., Duties of School Principals (Frank W. Hubbard), 229-30
- Jorgensen, Albert N., Gerberich, J. Raymond, and Greene, Harry A., Measurement and Evaluation in the Elementary School (Gustav J. Froehlich), 712-13
- Judd, Charles H., and Reavis, William C., The Teacher and Educational Administration (Floyd T. Goodier), 789-90
- Kandel, I. L., The End of an Era (Dorothy T. Hayes), 790-92
- Kelty, Mary G., Life in Early America and Life in Modern America (Robert B. Weaver), 393-94
- Koerth, Wilhelmine; Starch, Daniel; and Stanton, Hazel M., Psychology in Education (G. T. Buswell), 471-72
- Lamoreaux, Lillian A.; Bell, Reginald; Cain, Leo F.; and Others, Motion Pictures in a Modern Curriculum: A Report on the Use of Films in the Santa Barbara Schools. Motion Pictures in Education, No. 6 (Abram W. VanderMeer), 306-8
- Luecke, Editha, Factors Related to Children's Participation in Certain Types of Home Activity (Margaret Pritchard), 713-15
- McBroom, Maude; Moscrip, Ruth; Gillett, Norma; and Greene, Harry A., Building Better English: Step by Step; Day by Day; In School and Out; For Every Need; Manual for "Building

- Better English: Step by Step" (Marguerite E. Schuler), 153-54
- MacLachy, Josephine H. (editor), Education on the Air. Twelfth Yearbook of the Institute for Education by Radio (Abram W. VanderMeer), 554-55
- Macomber, Freeman Glenn, Guiding Child Development in the Elementary School (Florence L. Goodenough), 147-48
- Melvin, A. Gordon, Method for New Schools (Arthur K. Loomis), 68-70
- Monroe, Walter S. (editor), Encyclopedia of Educational Research (Nelson B. Henry), 151-53
- Moscrip, Ruth; Gillett, Norma; Greene, Harry A.; and McBroom, Maude, Building Better English: Step by Step; Day by Day; In School and Out; For Every Need; Manual for "Building Better English: Step by Step" (Marguerite E. Schuler), 153-54
- Moseley, Nicholas, and Cutts, Norma E., Practical School Discipline and Mental Hygiene (Robert E. Strickler), 708-9
- Noel, Francis W., Projecting Motion Pictures in the Classroom. Motion Pictures in Education, No. 5 (Abram W. VanderMeer), 306-8
- Nuttall, L. John, Jr., Teacher (Nelson B. Henry), 633-35
- Philosophies of Education. Forty-first Yearbook of the National Society for the Study of Education, Part I (Denton L. Geyer), 793-95
- Psychology of Learning, The. Forty-first Yearbook of the National Society for the Study of Education, Part II (Harold D. Carter), 795-97
- Randolph, Carolina R., and Walker, W. Frank, School Health Services (Frank Allen Smola), 233-34
- Reavis, William C., and Jacobson, Paul B., Duties of School Principals (Frank W. Hubbard), 229-30
- Reavis, William C., and Judd, Charles H., The Teacher and Educational Administration (Floyd T. Goodier), 789-90
- Reeder, Ward G., The Fundamentals of Public School Administration (John Guy Fowlkes), 150-51
- Reid, Charles F., Education in the Territories and Outlying Possessions of the United States (Earl K. Hillbrand), 72-74
- Saucier, W. A., Theory and Practice in the Elementary School (Hilda Taba), 472-74
- Saunders, Carleton M., Promotion or Failure for the Elementary School Pupil? (William J. Hamilton), 71-72
- Schatzmann, Iman Elsie, The Country School (Effie G. Bathurst), 550-52
- Shoobs, Nahum E., and Goldberg, George, Corrective Treatment for Unadjusted Children (Louise W. Putzke), 707-8
- Smiley, Dean F., and Strang, Ruth M., The Role of the Teacher in Health Education (V. L. Beggs), 392-93
- Stanton, Hazel M., Koerth, Wilhelmine, and Starch, Daniel, Psychology in Education (G. T. Buswell), 471-72
- Starch, Daniel; Stanton, Hazel M.; and Koerth, Wilhelmine, Psychology in Education (G. T. Buswell), 471-72
- Stevens, B. A., and Trabue, M. R., Spell To Write (E. E. Keener), 235-36
- Stinson, Ethelyn Lenore, How To Teach Children Music (Jessie Carter), 395-96
- Strang, Ruth M., and Smiley, Dean F., The Role of the Teacher in Health Education (V. L. Beggs), 392-93
- Street, Roy F., Children in a World of Conflict (Gustav J. Froehlich), 474-75
- Sumption, Merle R., Three Hundred Gifted Children (Helen L. Koch), 310-12
- Tower Hill School, Wilmington, Delaware, Staff of, A School Uses Motion Pictures. Motion Pictures in Education, No. 3 (Abram W. VanderMeer), 306-8
- Trabue, M. R., and Stevens, B. A., Spell To Write (E. E. Keener), 235-36
- Walker, W. Frank, and Randolph, Carolina R., School Health Services (Frank Allen Smola), 233-34
- Ward, Henry B. (editor), The Foundations of Conservation Education (O. D. Frank), 797-98
- Wieting, C. Maurice; Wood, Hugh B.; Bruner, Herbert B.; Evans, Hubert

- M.; and Hutchcroft, Cecil R., What Our Schools Are Teaching (Prudence Cutright), 630-31
- Williams, E. I. F., The Actual and Potential Use of Laboratory Schools in State Normal Schools and Teachers Colleges (Stephen M. Corey), 711-12
- Wood, Hugh B., Bruner, Herbert B., Evans, Hubert M., Hutchcroft, Cecil R., and Wieting, C. Maurice, What Our Schools Are Teaching (Prudence Cutright), 630-31
- Young, William E. (editor), The Social Studies in the Elementary School. Twelfth Yearbook of the National Council for the Social Studies (Grace E. Storm), 635-37

CURRENT PUBLICATIONS RECEIVED

74-80, 155-60, 237-40, 315-20, 396-400, 477-80, 557-60, 637-40, 715-20, 799-800

